

THE AMERICAN ELEVATOR AND GRAIN TRADE

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Of Course

We want your business but we want it on a basis that will pay you as well as ourselves. We want it because we have proper facilities for handling it.

Don't be satisfied with slow returns or poor service; send your shipments to

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FEED MIXERS
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Dried Buttermilk
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Wire, write or phone us for
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Furnish Plans, Estimates and Build
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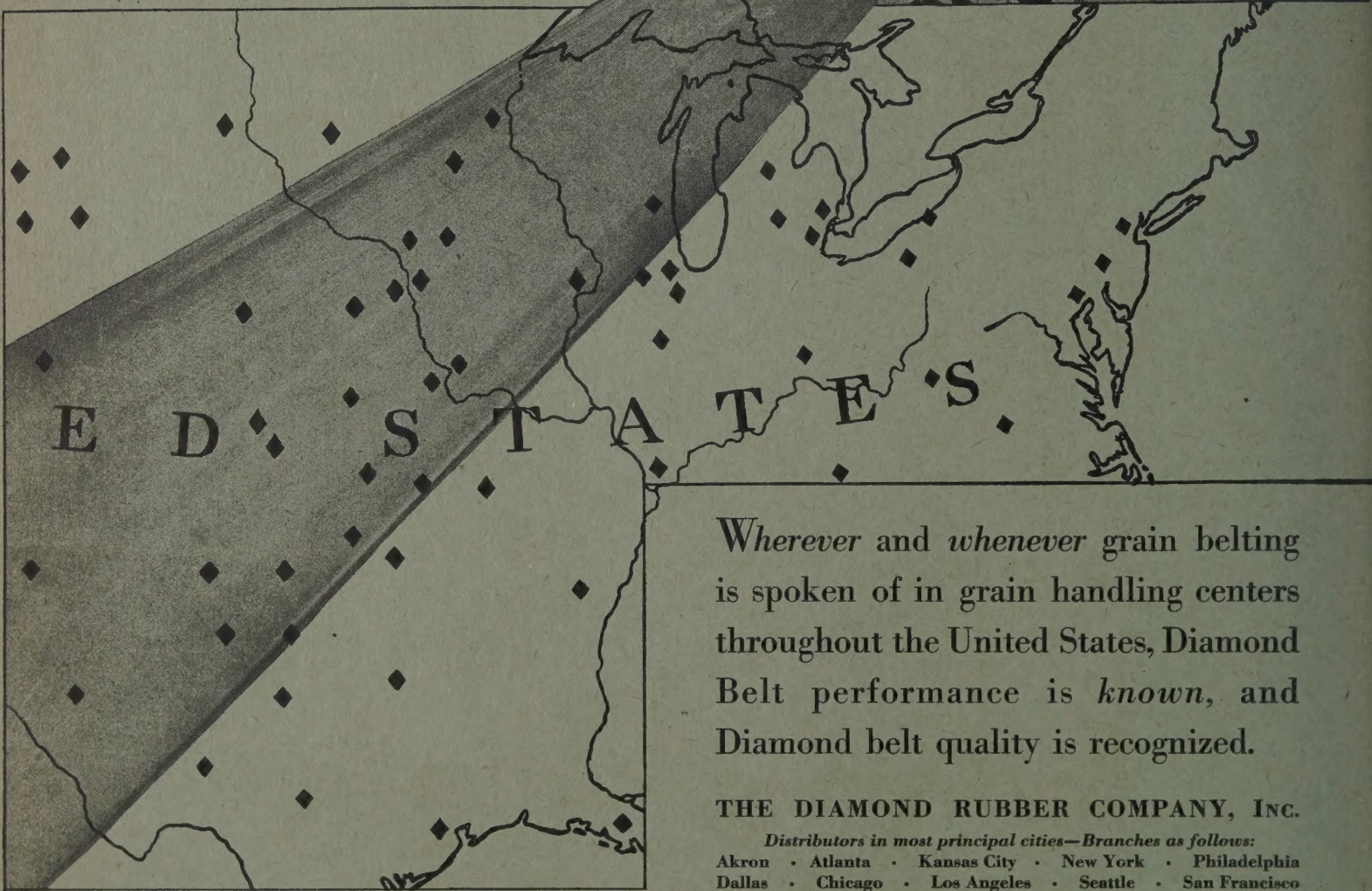
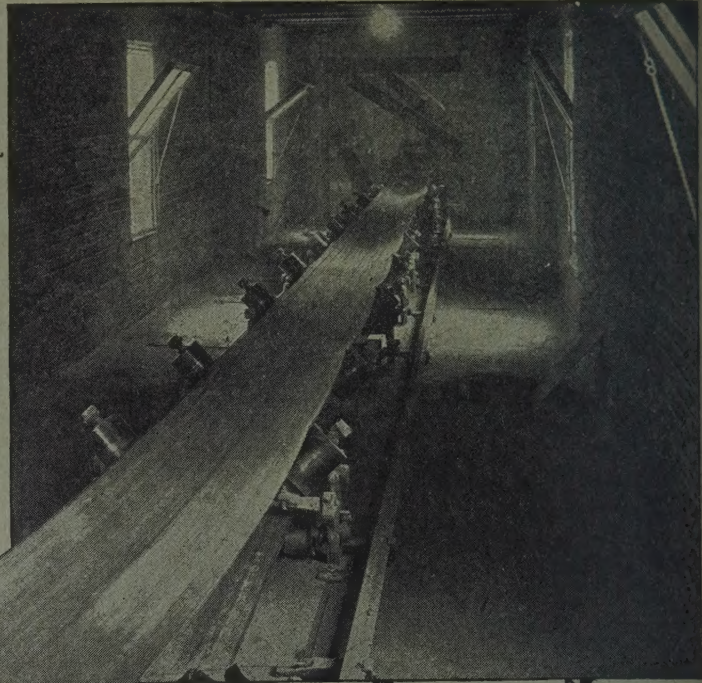
Can easily add Twenty-Five cents an Hour to the value of a man's time who uses it in unloading Coal or Grain from box cars.
Hence, in two weeks' use the Scoop-Truck will pay for itself and cost you nothing for its use thereafter. It will last for years and save the wearing out of a dozen common scoops in doing a like amount of work.
Hundreds have tried it and will certify to the truth of these statements.
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Patented July 30, 1907

PRICE: \$15.00 F. O. B. cars at factory
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*Convey the
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Wherever and whenever grain belting is spoken of in grain handling centers throughout the United States, Diamond Belt performance is *known*, and Diamond belt quality is recognized.

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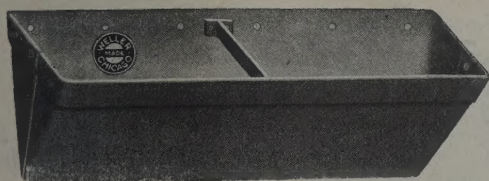
Akron • Atlanta • Kansas City • New York • Philadelphia
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RUBBER BELTING ✻ *HOSE · PACKING*

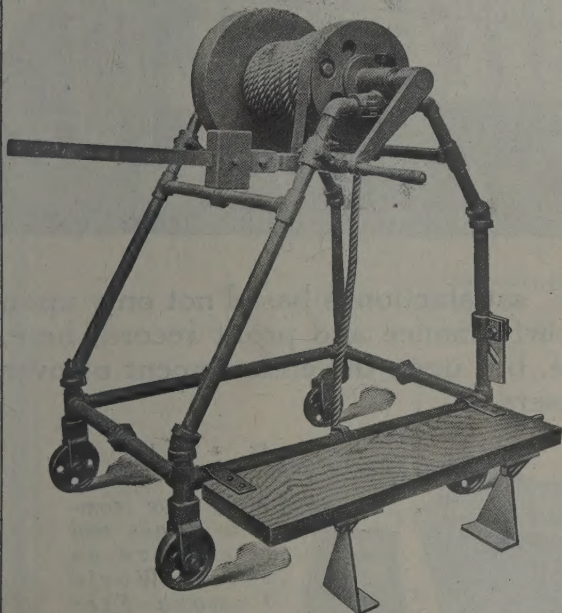
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GRAIN HANDLING EQUIPMENT



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New type one-piece bucket for high speed and perfect discharge. We also make Favorite, Earcorn, Buffalo, Rialto and Salem Elevator Buckets.



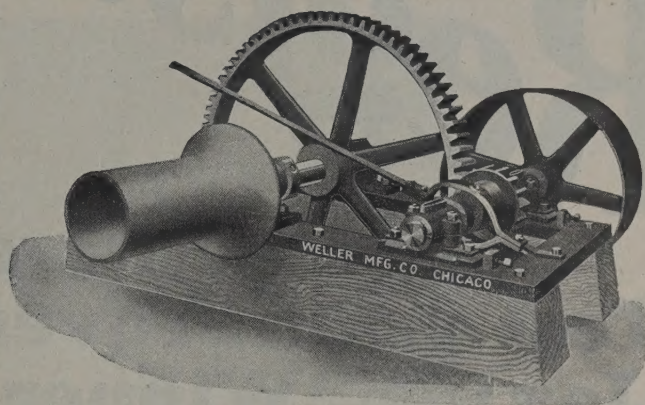
WELLER PORTABLE MAN HOIST

Designed primarily for lowering men into grain bins for the purpose of repair work or cleaning bins.



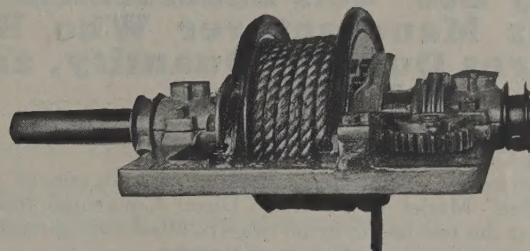
A few of the
Weller Products

Apron Conveyors
Belt Conveyors
Drag Conveyors
Mixing Conveyors
Spiral Conveyors
Bucket Elevators
Elevator Buckets
Elevator Boots
Elevator Casing
Elevator Heads
Barrel Elevators
Sack Elevators
Elevator Spouts
Loading Spouts
Dock Spouts
Truck Dumps
Wagon Dumps
Hoppers
Power Shovels
Car Pullers
Rope Drives
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Hangers
Friction Clutches
Chain
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Etc.



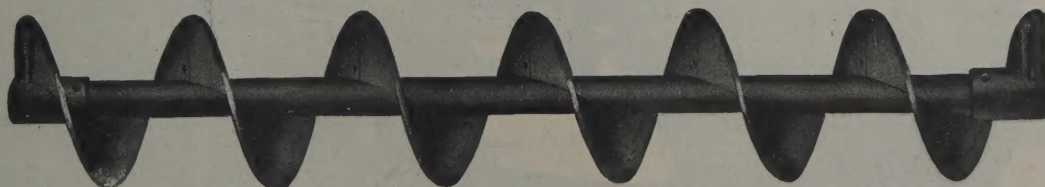
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Capacities 2 to 18 cars for manila rope or wire direct connected or for belt power.



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WELLER MADE PRODUCTS ARE SOLD ON THE BASIS OF QUALITY. INSTALLED IN YOUR MILL OR ELEVATOR THEY WILL HELP YOU OPERATE AT FULL CAPACITY BUT AT THE LOWEST COST FOR UPKEEP. WHERE SHUT-DOWNS ARE FREQUENT YOUR PROFITS ARE DISSIPATED. WELLER EQUIPMENT IS DEPENDABLE, OVERCOMING NECESSITY FOR REPAIRS.

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Lipscomb Grain & Seed Co., Springfield, Mo., put the "Jay Bee" Model W Mill to the competitive test. They require Quality and Quantity of their products entering into the manufacture of "Lipscomb's" trademarked line of feeds. Their "Jay Bee" stood the test.



Lipscomb Grain & Seed
Company, Springfield,
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"Jay Bee" Gets Endorsement of This Manufacturer Who Re- quires Quality, Quantity, and Low Cost Production.

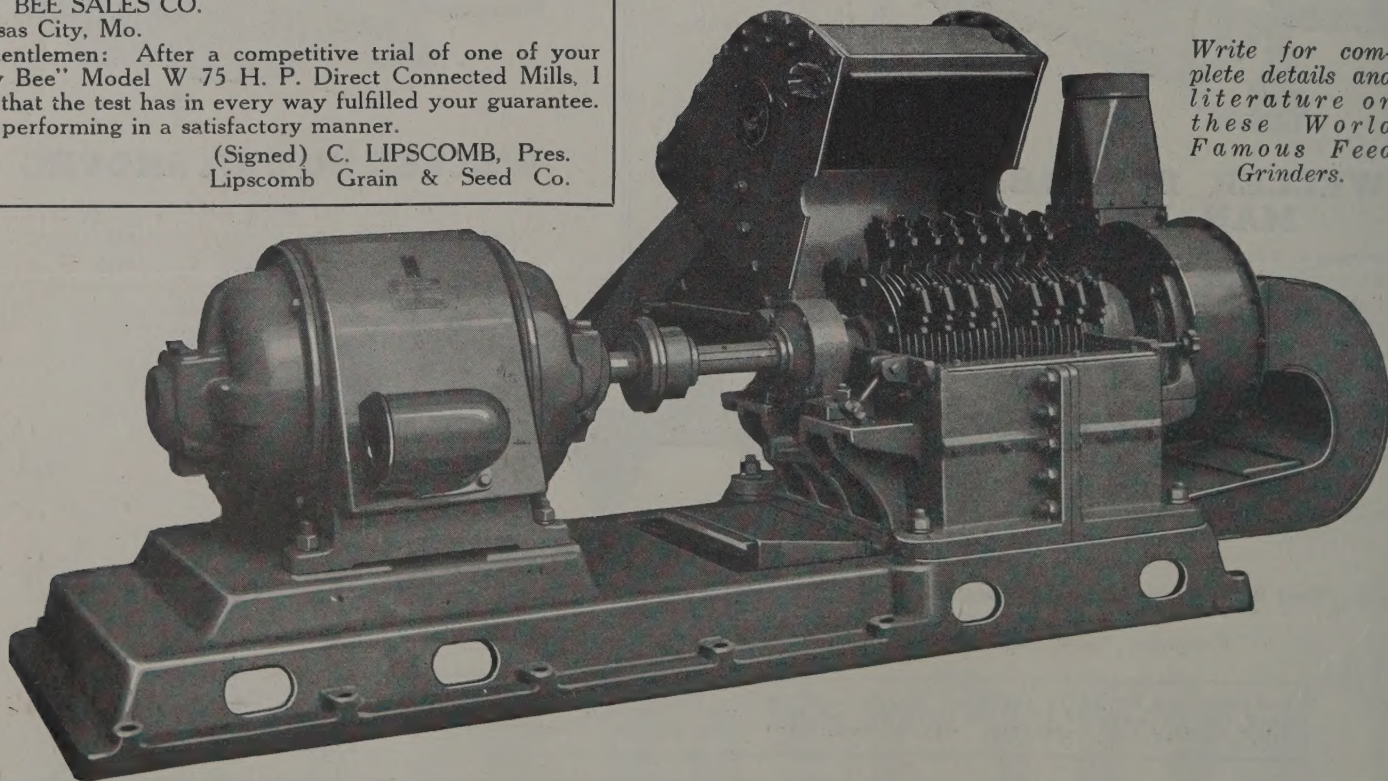
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Gentlemen: After a competitive trial of one of your "Jay Bee" Model W 75 H. P. Direct Connected Mills, I feel that the test has in every way fulfilled your guarantee. It is performing in a satisfactory manner.

(Signed) C. LIPSCOMB, Pres.
Lipscomb Grain & Seed Co.

"Jay Bee" satisfaction is based not only upon a good performance and profit record, here, and there, but upon the endorsement of over 10,000 users.

Write for com-
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literature on
these World
Famous Feed
Grinders.

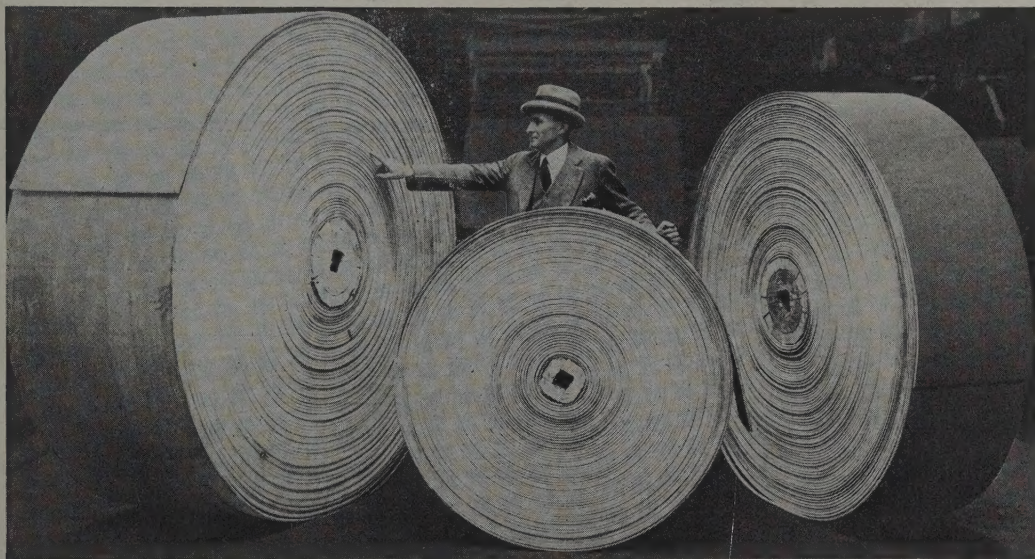


J. B. SEDBERRY, Inc., 74 Hickory St., Utica, N. Y.

J. B. SEDBERRY CO., 819 Exchange Avenue, CHICAGO, ILL.

JAY BEE SALES CO. 442-444 Live Stock Exchange Bldg., Kansas City, Mo.
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REPUBLIC Grain Conveyor Belting



Whether it's used in a terminal or line elevator—a feed mill—flour mill or cereal plant, for elevating or conveying, Republic Rubber Belts will operate economically because of Republic's experience.

ITEMS such as shown above are in daily use, are as staple to Industry as sugar is to the home, therefore, they are in constant demand. To meet that demand Republic recommends the Industrial Supply Distributor—his sales force—his warehouse—his service—are prime factors in economical distribution.

These Republic products are well made as time has proven—they are economically made and economically marketed as our distributors' prices prove. Specify them.

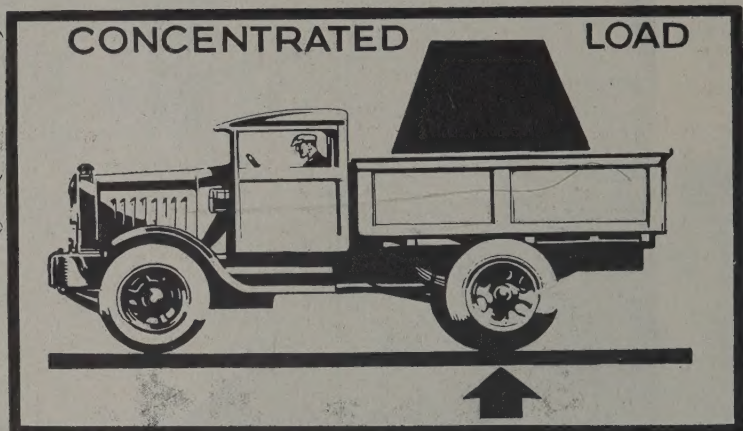
THE REPUBLIC RUBBER CO.
Youngstown, Ohio

Belting - Packing - Hose
Molded Goods - Lathe Cut Goods





*"Horse and buggy stuff"
can't get by today!*



Loaded trucks need Type "S" Scales

THE strong man of side show fame in the old "horse and buggy" days cut quite a figure when he started lifting his great bar with balls of staggering weight on either end. Picture his predicament though, if he had ever had to stage the same show with all that weight on just *one end of the bar!*

That is exactly the case today in the truck weighing field. Wagon scales did their work well enough while wagons, with the weight of their loads equally divided between front and rear axles, were in general

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The motor trucks of today carry from 65 to 90 per cent of their loads *over the rear axle, only.*

Accurate weighing of such loads demands special scale construction. Fairbanks Type "S" Truck Scales withstand the severest service and give dependable and lastingly accurate weight no matter how unbalanced the load is or where it is placed on the platform.

Check your present weighing equipment against modern requirements.

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And 40 principal cities—a service station at each house

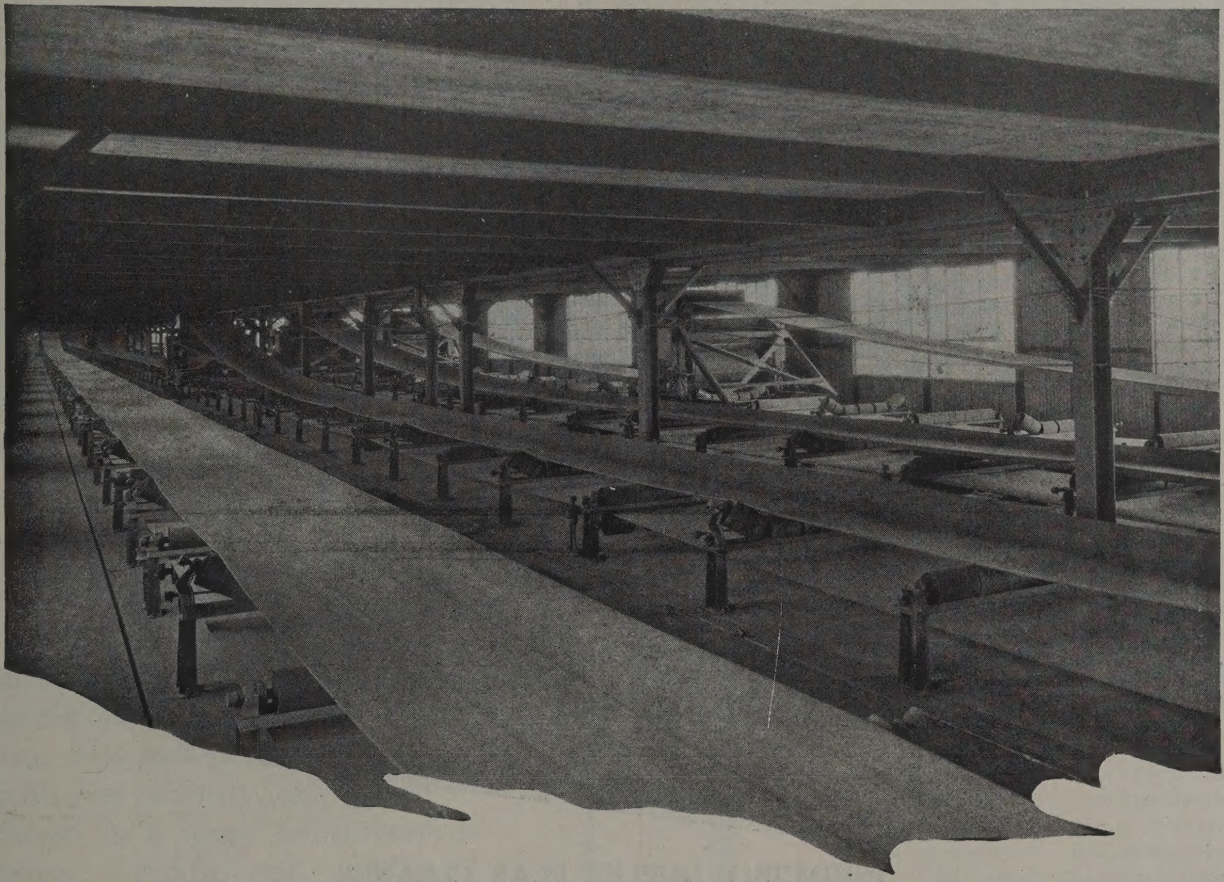
Fairbanks Scales

Preferred the



World Over

WEBSTER



Webster grain handling equipment is invariably specified or recommended by successful builders of grain elevators because they know that Webster equipment will live up to the high standard demanded. The correct method for handling grain and the right equipment with which to do it—both with reference to volume and cost—can be supplied by Webster engineers. With the experience of a half-century in solving grain handling problems in

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EQUIPMENT
FOR

LARGE AND SMALL
ELEVATORS,
CEREAL PLANTS,
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FLOUR
MILLS,
ETC.

elevators of all sizes, and under every condition of loading, unloading and distribution, Webster has long been

headquarters for grain handling machinery and its unlimited manufacturing facilities for building the necessary equipment guarantees prompt delivery at reasonable cost.

In every department of grain elevator equipment Webster engineers have answered problems of handling and storage, now a common practice.

THE WEBSTER MFG. COMPANY
1856 N. Kostner Ave. CHICAGO

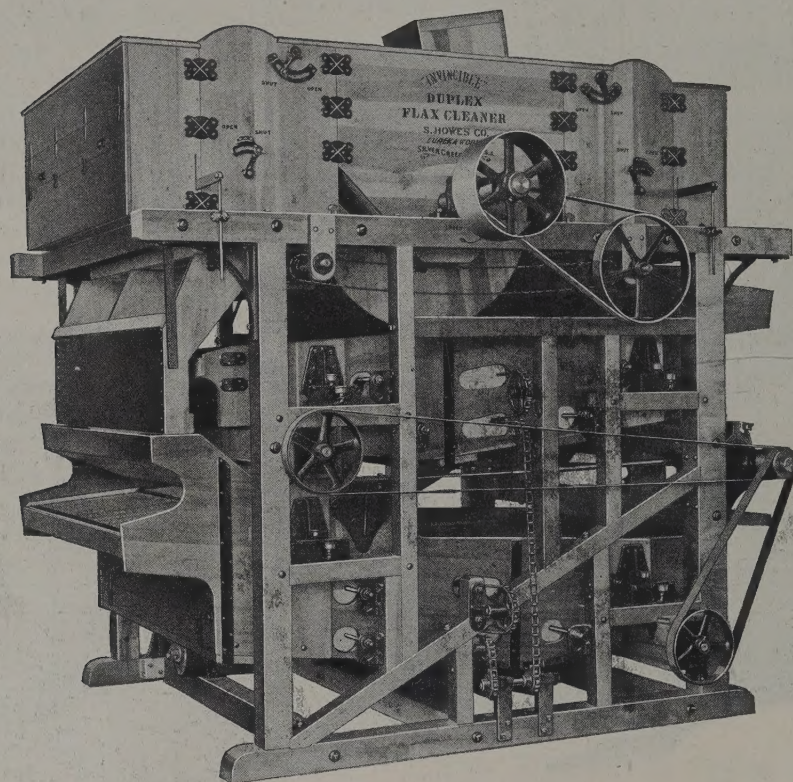
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For Prices on
GRAIN HANDLING EQUIPMENT



"Eureka" - "Invincible" Grain Cleaning Machinery



INVINCIBLE DUPLEX FLAX CLEANER

Eight of these machines
will be installed in the new Minneapolis plant
now being erected for
Spencer Kellogg & Sons, Inc.

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Special Sales Agents: Strong-Scott Mfg. Co., Minneapolis, Minn.

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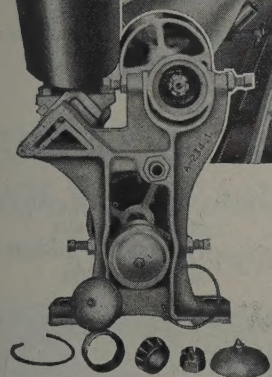
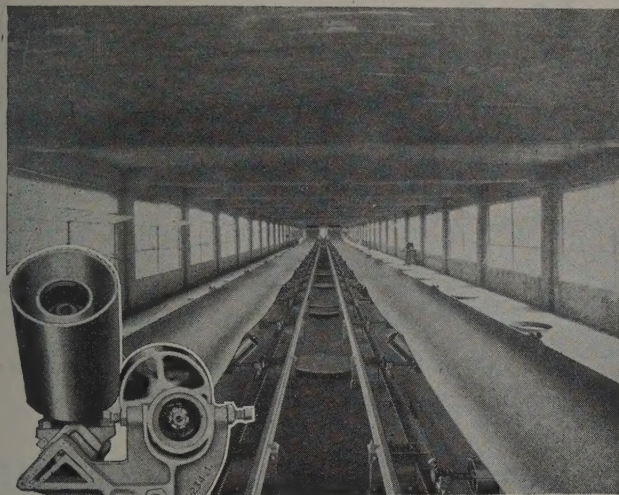
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INVINCIBLE GRAIN CLEANER CO. SILVER CREEK, N.Y.



"EUREKA" - "INVINCIBLE" GRAIN CLEANING MACHINERY

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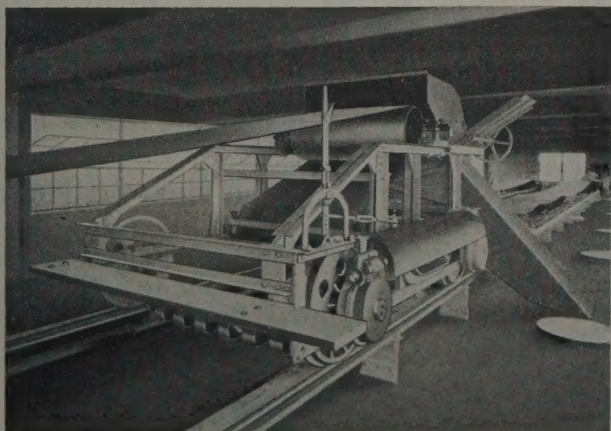


EHR SAM TIMKEN-EQUIPPED CONVEYOR INSTALLATIONS

THE illustration above shows an "Ehrsam" Timken bearing-equipped conveyor—and the lower illustration shows an "Ehrsam" heavy duty self-propelling tripper—both just recently installed in an addition to a large southwestern elevator. Additional "Ehrsam" equipment was installed too. For the name "Ehrsam" stands for quality elevator equipment in the industry.

J. B. Ehrsam & Sons Mfg. Co. ENTERPRISE, KANS.

Manufacturers of Machinery for flour mills, Cement Plaster Mills, Grain Elevators, Salt Plants, Coal Handling and Rock Crushing Systems, Fertilizer Factories, Power Transmission, Elevating and Conveying equipment.



Soaring Skyward!

WERE it within the realm of reason or possibility, The M. A. Long Company, builders of the Baltimore and Ohio Railroad Grain Elevator, would like to place, as a graphic example, the silos of this mammoth structure end on end. They would form a cylindrical column reaching three-and-a-half miles into the sky. If you could stand on this massive pillar of concrete, at night, the beacons of the city of Baltimore, below, would be barely discernible. Such is the magnitude of grain elevator construction done by The M. A. Long Company.

Whether a huge grain elevator, or kindred structure—whatever the building project—the Long organization can design and construct it for you.

Large and small construction problems assume the same importance to The M. A. Long Company.

For the last decade, this experienced group of engineers have set construction standards which have resulted in the phenomenal growth of this organization, and recognition unparalleled in the annals of concrete construction.



Send for interesting illustrations of construction projects, designed and erected by The M. A. Long Company. Address communication—attention Grain Elevator Department:

The M. A. LONG Co.

Engineers and Constructors

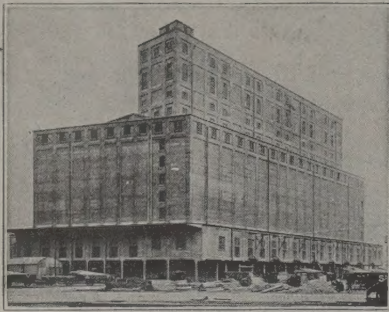
10 West Chase Street

BALTIMORE

CHICAGO

WASHINGTON





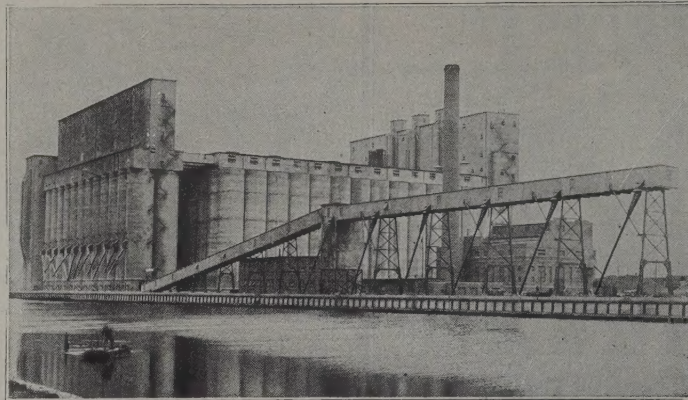
Manchester Ship Canal Elevator
Manchester, England
Capacity 1,500,000 Bushels
Completed 1914



Buenos Aires Elevator Co.
Buenos Aires, Argentina
Capacity 750,000 Bushels
Completed 1920



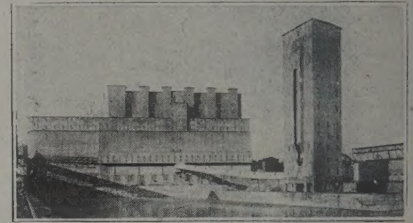
John S. Metcalf Co. Grain Elevator Engineers



Chicago & North Western Railway Elevator
South Chicago, Illinois
Capacity 10,000,000 Bushels
Completed 1920

OFFICES:

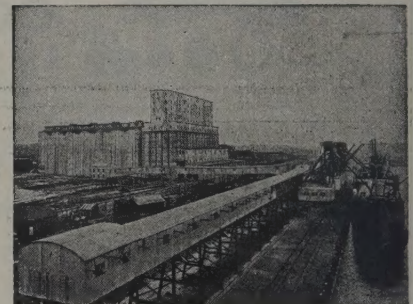
Chicago, Illinois - - - 111 W. Jackson Blvd.
Montreal, Canada - - - 460 St. Helen Street
Sydney, Australia - - - - - Pitt Street
London, England - - - 33 Henrietta St., Strand
Vancouver, B. C. - - - 837 W. Hastings St.



Harbour Commissioners Elevator No. 2
Montreal, Quebec
Capacity 2,600,000 Bushels
Completed 1912



Sydney Terminal Elevator
Sydney, Australia
Capacity 6,400,000 Bushels
Completed 1921

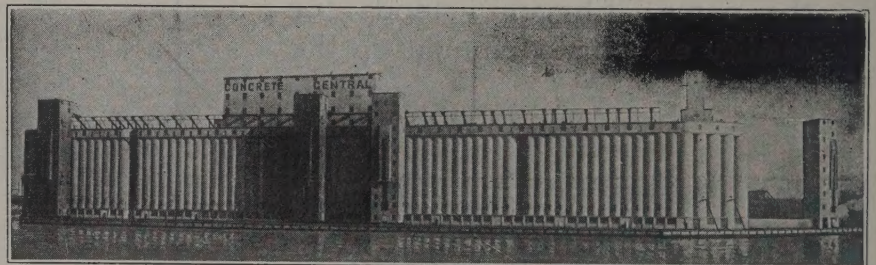


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Assure You
Economical Design
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One of the Modern Houses Which Has Made a Record
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Reinforced Concrete and Steel Ore Dock constructed at Superior, Wisconsin, for the Allouez Bay Dock Company. Entirely Fireproof.

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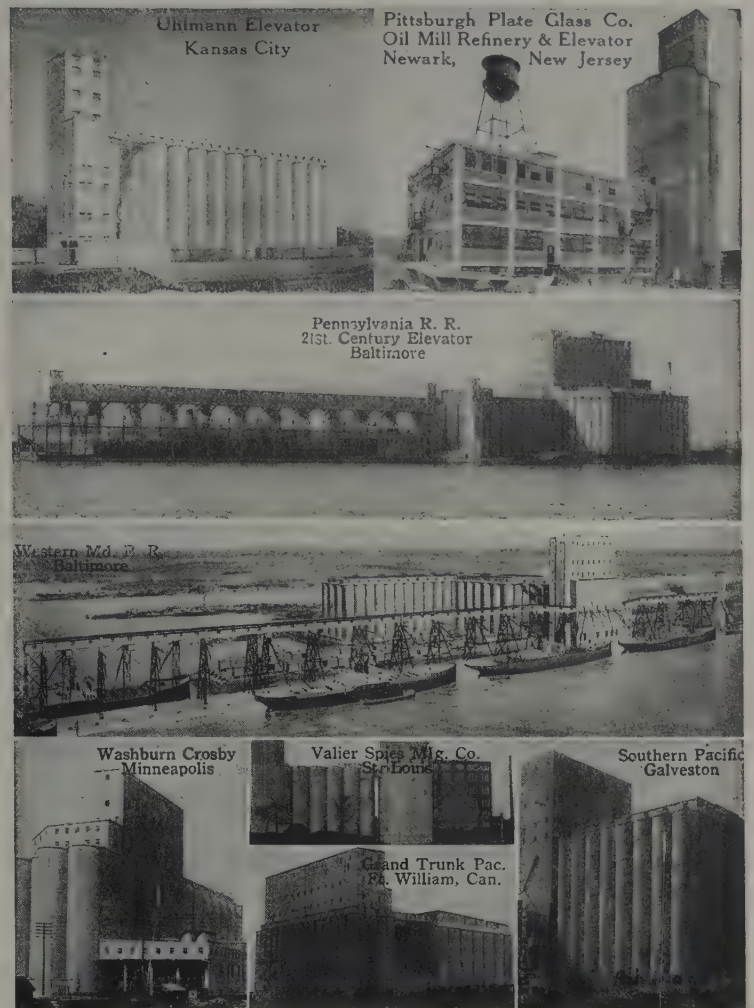
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FISHER BUILDING — 343 S. DEARBORN ST.

CHICAGO, ILLINOIS

ON THE ALERT

No one will dispute the fact that the successful business man must, and has always been so.

It is necessary in these days of close competition that every penny be reckoned with. That is why the

ZELENY SYSTEM

has been making such a wonderful record of late. It is always on the alert regardless of what may happen at the elevator, and regardless of who it is that has failed to function, the

ZELENY SYSTEM

is a constant silent guardian of the contents of the bins, and knows at all times the condition of the grain. The office boy can operate it, and the President knows the actual conditions. Is it any wonder that we have been equipping more bins each year with the

ZELENY SYSTEM

for twenty-two years—and our address never changes, yesterday, today, tomorrow, always—

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MINNEAPOLIS, MINN.



*DESIGNED for the years
ahead—an advance we
propose to maintain.*

N. M. PATERSON CO.

2,500,000 Bu. Elevator

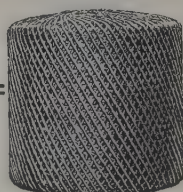
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The original
"Big Ball"
with the
Patented Cover.



Heres a Profit Opportunity for Grain Merchants

IN these days of diversified marketing, it pays to give serious thought to volume-building lines that can be sold at a profit without adding materially to your investment. INTERNATIONAL TWINE is such a line.

The farm public knows INTERNATIONAL TWINE and has confidence in it. They buy it almost without urging—and there are no come-backs; the high quality takes care of that.

Because International Harvester branches—carrying full stocks of INTERNATIONAL TWINE—are so conveniently located, you can successfully sell this twine out of very limited stocks. Supplementary supplies can always be obtained from the branch on short notice.

If there is no one in your town selling INTERNATIONAL TWINE, get in touch with the International traveler, the nearby branch, or write direct to us at Chicago, and ask for information covering the INTERNATIONAL TWINE contract.

You'll find it a very easy matter to place a good volume of this high-quality twine among your friends and customers, *at a good profit!*

INTERNATIONAL HARVESTER COMPANY

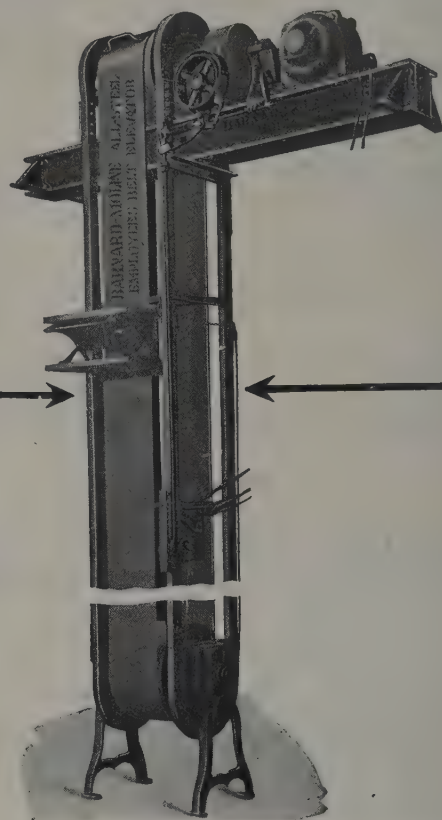
606 S. Michigan Ave. of America Chicago, Ill.
(Incorporated)

International "BIG BALL" TWINE

Guaranteed for Length, Strength, and Weight
Treated Against Destruction by Insects

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or
CONSERVING

TIME
ENERGY = PROFITS
HEALTH



Barnard-Moline Employees Belt or Service Elevator

By saving or conserving the TIME, ENERGY and HEALTH of your employees, you increase your PROFITS. These elements mean real money to you every day, every week, every month, every year. The installation of a Barnard-Moline Employees Belt or Service Elevator does just those things and furthermore, may secure for you lower insurance rates by guaranteeing prompt and regular attention to machinery and equipment in isolated or inaccessible parts of your plant.

SALIENT FEATURES

- All Iron and Steel Construction—Long life—Minimum upkeep.
- Machine Cut Phosphor Bronze Gear and Steel Worm, enclosed in oil tight housing—Adds to life—Prevents oil leakage.
- Thrust Ball Bearings on Worm Shaft—Increases efficiency—Reduces upkeep.
- Patented Non-reversing Double-tread Steps of New Style Tie-plate Construction—Eliminates belt sway—Decreases friction—Increases strength and rigidity.
- Patented Automatic Safety Stop Device—Passengers cannot be carried over top.
- Heavy Rubber Belt of high quality—Long life.
- Double Belt, Double Arm Cast Iron Rubber Covered Head Pulley—Adds strength.
- Double Belt Cast Iron Boot Pulley—Adds strength.
- Double Boxed Beam Construction for mounting Head Mechanism with Heavy Cast Iron Brackets at ends on each side—Insures rigidity.
- Safety Belt Handles, reverse types for up and down travel—Passenger can only grasp proper Handle.
- Belt Driven Type—For belt connection to old line shaft or motor.
- Motor Driven Type—Self-Contained with Silent Chain Drive—Easy and economical to install—Can be operated independent of other machinery.

Bulletin and quotation furnished cheerfully upon request

Barnard & Leas Mfg. Co., Moline, Illinois, U. S. A.

Established 1860

Southwestern Representative

S. H. Stoltzfus, 2021-2023 Pennsylvania Ave., Kansas City, Mo.



CAPACITY 800,000 BUSHELS

THOSE CONCERNED

Or even casually interested in concrete grain storages notice and usually comment on the accurate alignment, smooth walls, and clean cut appearance of

POLK SYSTEM BINS

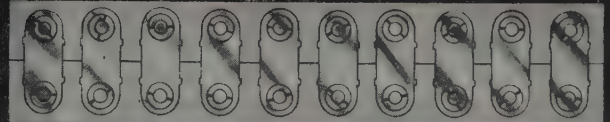
We Design and Erect

Send us your inquiries.

POLK GENUNG POLK CO.

FORT BRANCH

INDIANA



for Elevator Belts

FLEXCO

HD Belt Fasteners

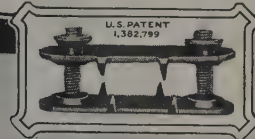
These well known fasteners stop trouble with elevator and tight butt conveyor joints. They have far more strength than needed and the pull is equalized on both sides of the belt insuring long service. Note recessed plates which embed in and compress the belt instead of pulling against the bolt holes. Stocked by leading jobbers in 5 sizes. Consultation invited.

Flexible Steel Lacing Company

4627 Lexington Street

Chicago, Illinois

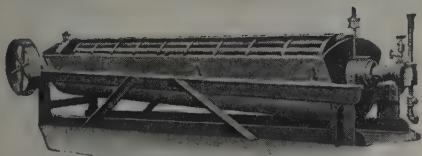
Recommended by leading belting manufacturers



for Conveyor Belts

SEE THAT YOUR CONTRACT CALLS FOR

THE CUTLER MEAL DRYER



All Metal Steam Dryer

SOLD BY ALL
MILL
FURNISHERS

IN SUCCESSFUL USE 40 YEARS DRYING
CORN MEAL, HOMINY, BREWERS' GRITS AND MEAL, AND ALL CEREAL
PRODUCTS. ALSO SAND, COAL DUST, GRAPHITE, CLAY, ORES, ETC.
Automatic in operation, requiring no attention

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Panama Pacific Export Elevator, Ogden Point, Victoria, B. C.

A new modern Canadian West Coast Export Elevator
Equipped with

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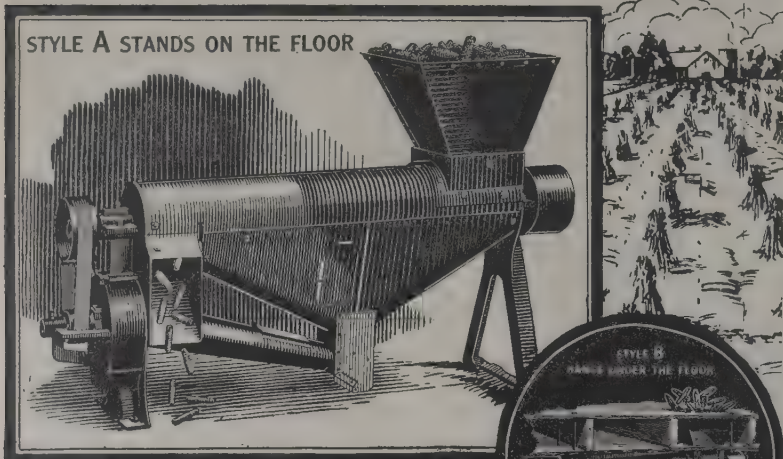
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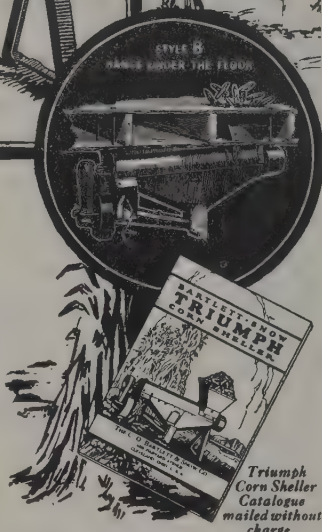


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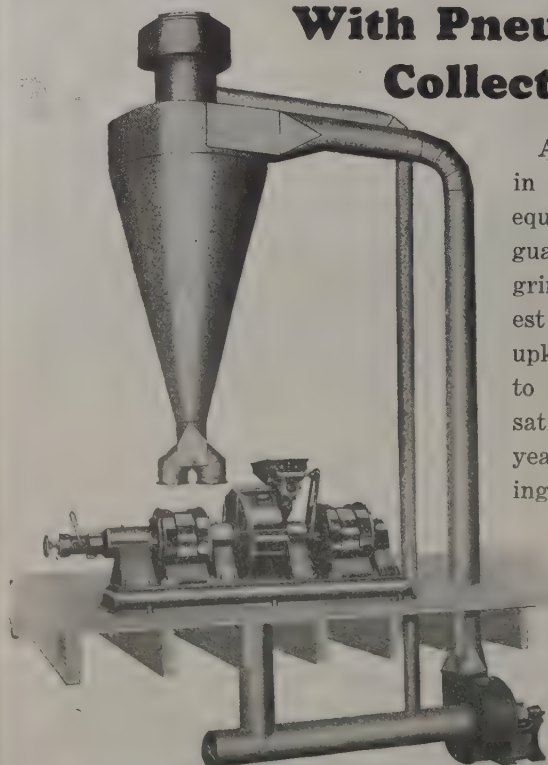
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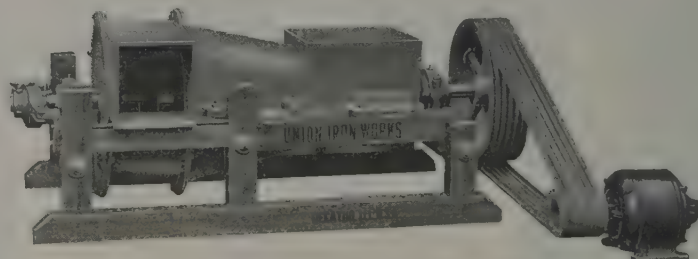
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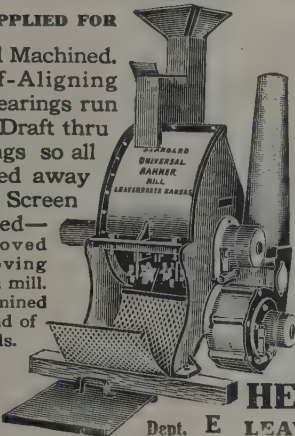
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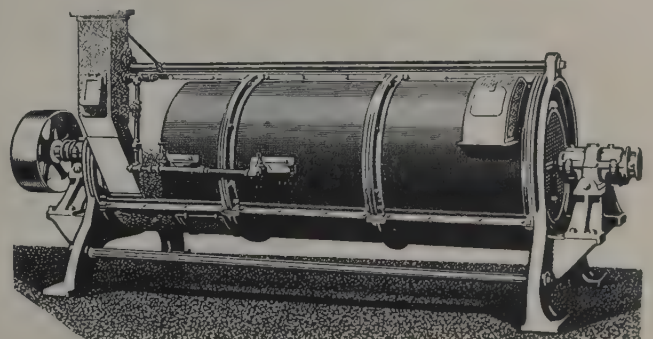
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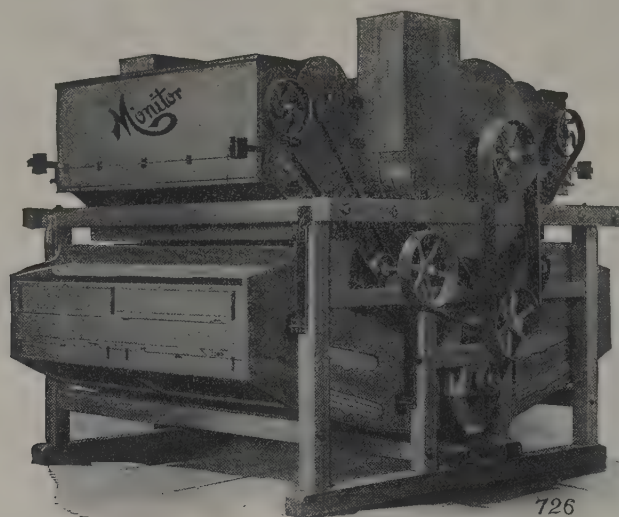
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Established in 1882.



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Established in 1882.

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CHICAGO, ILLINOIS, MARCH 15, 1929

NO. 9

Motors Oust Steam in Chicago Elevator

Fire Loss in 1928 Is Cue for Thorough Program of Improvements Centering About New Head House

OIL is the fuel used for grain drier boilers, but with that exception, the elevator of the John E. Bastien Grain Company, Chicago, is now an all-electric proposition. In more ways than one, the revamping of this company's storage property typifies current trends. It illustrates even more clearly than a description of an all-new elevator, the definite break between old and modern ideas in elevator design and equipage. Only in the property of a firm which has bridged a long period of years are these sharp contrasts visible. The John E. Bastien Grain Company has operated under that name for eight years, but acquired the elevator and business of Frank Marshall who was active in the Chicago grain trade for about 35 years. The present organization is a partnership, headed by John E. Bastien and Alex Moore, co-managers.

Just a year ago, the wooden head house of the Bastien elevator on the belt railroad, was destroyed by fire of unknown origin, thus bringing to an end a quarter-century of continuous service. The heat from the burning portion of the plant caused some flaking or spalling of the adjoining concrete grain tanks. That this damage was easily repaired, helps bear out statements of the "concrete for permanence" sloganeers, who insist that circular, monolithic grain tanks of proper concrete mix, are proof against about everything from erosion to arson.

One claim not made for concrete is that it is able to withstand the impact of dust explosions. Against this hazard, simple and effective precautions are taken. The old steam engine room has been converted into a dust house; collectors feed into it, and the dust is sacked as fast as it accumulates. A fireproof roof now protects the boiler-room, replacing the wooden roof which burned. These details and all the others involved in connection, were parts of the plans submitted to the grain company by the M. A. Long Company, of Baltimore, Md. The Chicago office of this engineering and construction firm supplied the most acceptable rebuilding and improvement plans of any offered. The new structure, on a 27 by 48-foot base, is of reinforced concrete, and rises to a height of 142 feet. The walls are eight inches thick. In

cross section, the layout includes basement, first story, storage bins with a 43,600-bushel capacity, and cupola, consisting of a bin floor, scale floor, and head floor. A steel frame counterweighted manlift gives access to the scale floor and intermediate levels. The track shed is 80 feet in length, steel-mounted, and covered with corrugated metal siding. For receiving grain, a pair of car unloading pits is provided, each having two Clark Automatic Power Shovels. Car pulling equipment was furnished by the Webster Manufacturing Company,

the Bastien job by the Diamond Rubber Company, of Akron, Ohio. The footage supplied in this Chicago elevator represents a minute fraction of the total 25-mile length of Diamond Grain Belts now operating in America.

Grain is discharged from the cars on the belt siding down to the receiving elevators, which in turn, lift and empty into the garner. The garner feeds the scale hopper, and after the grain is weighed, it is spouted to the work house bins, or onto the 24-inch Diamond Rubber Belt Conveyor leading to the annex. Grain may be shunted off to the Hess Drier from any point in the elevator. In addition to the two receiving legs, a transfer or drier leg is installed, discharging directly to the scales or, by means of spouting, to the work house bins or tanks. The elevating belts are of 12-inch width, and fitted with 10 by 8 by 8-inch Buffalo Elevator Buckets.

On the first floor of the work house, provision has been made for the installation of grain cleaning equipment.

All machinery in the new Bastien plant is driven by electric motors with a total horsepower rating of 163. The electric battery is composed of 11 units on individual drives, operating on current transformed at the site to 60-cycle, three-phase, 440-volt alternating. The motors, of the squirrel-cage, induction type, include one 25-horsepower unit for the car puller, four 20's for the three elevator legs and drier fan, a pair of 15's for storage and shipping belt conveyors, and three 7½-horsepower motors for the power shovels and dust collecting system. The grain drier's belt conveyor operates from another five-horsepower motor. The silent chain drives were supplied by the Morse Chain Company, of Ithaca, N. Y.

The new workhouse of the Bastien plant has a capacity of around 60,000 bushels, according to Alex Moore, partner in the John E. Bastien Company. The tanks can accommodate from 90,000 to 100,000 bushels more. Turnover, and not necessarily capacity, is what counts in the profit and loss sheets of modern terminal trade. This 150,000-bushel elevator now is prepared to turn its stock as well, as fast, and as economically as the grain received anywhere else in the Chicago area.



ELEVATOR OF THE JOHN E. BASTIEN GRAIN COMPANY, CHICAGO, ILL.

from its shops in Chicago, Ill.

The new grain drier in the Bastien plant is an efficient unit with a capacity of 750 bushels per hour. The Hess Warming and Ventilating Company, of Chicago, furnished this important part of the equipment which is housed in a separate building adequately protected by made-to-order dust collecting apparatus. The drier conveyor belt is 18 inches wide. Belting, that factor without which no elevator can be automatic, was taken care of on

TWELVE CENTS, POOL PAYMENT

Ninety-seven cents a bushel is the sum so far advanced by the Western Canadian Pool for last season's wheat. Growers received checks this month, totalling \$26,200,000 as the first interim payment on the crop for which the initial payment was 85 cents a bushel.

Although the 12-cent payment seems low to some pool members, the pool officials remind their public of the poor quality of grain received. Just before the interim checks were made against the pool treasury, it was reported that much pool wheat was being unloaded in the Winnipeg pit.

FINAL ACTION ON PROTEIN BILL NEXT MONTH

President Hoover's signature and endorsement by the House of Representatives are all the Walsh Protein Analysis Bill needs to become law. Passed by the Senate without debate, the measure seems scheduled for clear sailing through the special session of Congress in April.

Country grain dealers and farmers, under the terms of this bill, would be provided with a protein testing service through the establishment of a chain of laboratories in charge of Federal chemists. A pre-harvest forecast of the probable normal protein percentage also is called for. The bill's sponsors claim that the Walsh system will insure a fair return of protein premiums to the growers.

POOLERS ASKED TO VIEW AN "INVISIBLE" PROFIT

"One of the difficulties in pool elevator operation," admits R. M. Mahoney, manager of the Manitoba Wheat Pool, "comes from the fact that our charges being low, we do not show as big an earning as could readily be shown did we operate on a different basis."

As a case in point, he cites one elevator where about 250,000 bushels are handled, and 200,000 bushels of this amount are cleaned. "For cleaning this grain," explains the pool executive, "the association will earn, as an association, \$2,000; but what has the association actually earned for its members? We can only estimate."

Mr. Mahoney's estimate is that the grade of the grain was raised for an average value of three cents per bushel, and that the growers therefore netted \$6,000 which never showed up on the books. An additional \$15,000, he figures, accrued to them from the dockage returned.

JARDINE HANDS "CO-OP" TORCH TO MISSOURIAN

A Kansas City insurance man, Arthur M. Hyde, the highlight in whose past political career was governorship of Missouri, has been appointed Secretary of the United States Department of Agriculture by President Hoover. The Senate has confirmed the appointment, and the retiring secretary, William H. Jardine, has turned over the farmer-co-operative promotional work and other major interests of his office to his successor. Secretary Hyde is 52 years old, and in addition to his business and political affiliations, is owner of several farms which are managed under the corporation plan. He has asserted himself, although not recently, as favoring McNary-Haugen agricultural "relief" proposals.

It is generally conceded that Secretary Hyde is well qualified to interpret President Hoover's program of farm industrialization to farmers in masterly fashion. A feature of his work, it is understood, will be a most aggressive promotion of Federally sponsored co-operative marketing, as against the marketing of grain and other farm products by independent management. This assumption is based mainly on the President's campaign speeches of 1928.

Observers in Washington, D. C., noting that the agricultural post was the last cabinet office to be

filled, have ventured that the final decision was an alternative, rather than a first choice. Unable to secure the service of the individual to whom logic at first seemed to point, it is thought the President may have been glad, as the final day approached, to hand the portfolio to a man whose loyalty and tractability at least, were known quantities.

TRADE RULES EMPHASIZED

In finding for the defendant in the case of Flynn Bros. Grain & Feed Company, of St. Louis, Mo., against the Pioneer Warehouse Company, Jacksonville, Fla., a trade arbitration committee gives the following as basis for its decision: "Warehousesmen acting under instructions of shipper to sell stored grain at a certain price, are not liable to shippers for advance in values for sales made after the market has advanced unless warehousesmen have definite notice to change selling price."

Two other rules in connection with another phase of trading were similarly stressed in the case of Blasser & Marks, Denham, Ind., against A. K. Zinn & Co., Battle Creek, Mich: "Destination weights govern when specified in contract" and "when seller authorizes buyer to sell at best advantage a car of off-grade grain shipped on contract and remit net proceeds, seller assumes responsibility for any loss that may accrue."

A POST-MORTEM REPORT ON THE CARAWAY BILL

By EDWARD JEROME DIES

Storms of bitterness against railroads, grain exchanges, and other established institutions by farm radicals in Congress have abated somewhat in recent years. At the regular session, just closed, the usual pyrotechnics were provided by Senator Caraway's bill, which has come up for defeat for a number of years. All farmers familiar with grain exchanges are genuinely desirous of retaining the hedging facilities of such markets. So are millers, merchants, bankers, elevator men and exporters.

There can be no hedging facilities whatever without a futures market. The Caraway Bill would definitely have put an end to futures markets in grain and cotton and thus destroy the one thing which not only the farmers, but even most radical farm leaders have endorsed. So this measure, brought up session after session until it has acquired some following, does not in any degree represent agrarian thought.

This fact is mirrored in editorial comment in publications that may properly be regarded as voicing farm opinion. The Chicago *Tribune*, which supported the McNary-Haugen bill, said of the Caraway bill, editorially:

A bill is before the senate to place further restraints upon future trading in grain and cotton. This measure is recommended as in the farmers' interest. It is another proposal to improve the lot of the farmer by reducing the number of buyers bidding for his wares. Instead of resulting in better prices for crops, it is far more likely to result in lowered prices. The consequences of meddling with the intricate machinery for marketing farm products have been apparent, now, for a decade or more, and it is difficult to believe that there is any considerable number of farmers who put faith any longer in this kind of legislation.

A study of the policies of the Chicago *Daily News* will show that few publications have made a more sincere and able effort to understand the farm problem and aid in its solution. Yet in discussing the Caraway bill, editorially, the *Daily News* said:

Commonsense dictated the rejection by the United States senate of the Caraway bill, a measure so restricting as practically to prohibit trading in futures. By its terms actual and immediate delivery of the commodity specified in any contract was required. Though perhaps it was an exaggeration to allege that such a law would close all grain and cotton exchanges, it cannot be doubted that a measure of this sort—unscientific, crude and sweeping in its application—would hamper legitimate trading and so would injure, instead of benefiting, the interests sought to be protected.

From the standpoint of the American banker, the importance of the grain futures market to commerce and national progress is ably discussed in *Bankers Monthly*. Not a single banker of high standing in America, who is familiar with grain

and cotton marketing problems, would endorse the Caraway bill in its present destructive form.

Yet, "to speculators—and amateur speculators at that," says the Philadelphia *Public Ledger*, editorially, "the country owes most of its great industries and no inconsiderable part of its present verve and prosperity. This assumes that a speculator is a man willing to risk his money on a new idea or a new way of doing useful things. It will not do to talk of such a man with mingled suspicion and pity. Speculators helped Alexander Graham Bell to develop his telephone. The lords of industry in Bell's time looked at the telephone, listened to it and observed that it would be a pretty thing for children to play with. Speculators gave railroads their first great start. They made the motor car industry, and the motor car industry made them. . . ."

On this same general subject *Commercial West* of Minneapolis, in the heart of farm discontent, says editorially:

In the days before the grain markets had lost so many of the speculative friends of wheat, corn, oats and barley, there was generally much less depression in prices on bumper crops, such as has happened this year. A vast amount of capital was formerly employed in speculative buying of these grains when supply was largely proportionate to consumptive demand, but in anticipation of later consumption using up the supply. . . .

"Dealers protect themselves by buying futures and it is the speculator who makes it possible for them to stay in business," says *The Country Gentleman* of February.

Sensational statements as amazing as they are inaccurate, were made recently on the floor of the Senate. The most startling comment was that of Senators Frazier and Capper to the effect that enormous short sales in contracts for future delivery had caused the downward course of prices. This is preposterous to the informed man. Perhaps no writers in America are abler authorities on this subject than those in charge of the editorial pages of the *Wall Street Journal*. The exchanges themselves could not have stated the situation more clearly and accurately than did the recent editorial in that publication: "In his zeal for agriculture Senator Capper ought not to make use of statistics without knowing what they mean. This he did in advocating the Caraway Bill for the elimination of future trading in commodity markets. Although he called the bill 'farm relief of the most practical kind' he gave the impression that if the bill was as fallacious as his argument, it was impractical."

JAIL FOR MARKET TIPSTER

Fly-by-night companies publishing spurious grain market "news," have sold their office furniture and decamped from various cities this month, following a decree by the Federal Court in Kansas City, Mo., February 26, sentencing H. C. Schauble to four years in prison. A \$100 fine also was levied against the defendant who had promoted illegal put and call grain trading.

The *Investors' Daily Guide* was the Schauble publication on which was based the seven-count Federal indictment. L. A. Fitz and W. F. Logan, of the Government Grain Futures Administration, were witnesses for the prosecution.

HAUGEN HEARING MARCH 22

Representative Haugen, chairman of the agricultural committee in the lower house, announces that hearings on a new farm relief bill will begin in Washington, D. C., March 22. The bill will be presented to Congress, it is expected, shortly after the special session convenes in April. Spokesmen for grain dealer associations, as well as millers and farmers, will be heard by the committee during the two weeks it is in session.

The committee has not adopted a program for hearings, Mr. Haugen states, because members have not been informed as to what interests will wish to be heard. The chairman also announces that it is understood by House leaders that the farm relief bill will be the first measure considered at the extra session.

Trend in Canadian Grain Movement

Montreal and Vancouver Can Look Forward to a Continuation of Friendly Rivalry in the Shipment of Grain

By E. L. CHICANOT

WITHIN the last year or two, since grain exports from the Pacific Coast began to assume quite important and significant proportions, there has become apparent a certain rivalry between the ports of Montreal and Vancouver. The fervor of feeling, it must be said, has been almost entirely on the part of the Pacific Coast port, the natural exuberance of a stripling feeling he is getting on pretty well in the world, the great St. Lawrence port being merely occasionally provoked to good-natured expository utterance. As a matter of fact, a decidedly interesting situation has been developing.

In the fall of the past year eastern Canada, and in particular Montreal, was electrified by the announcement broadcast from Vancouver that the Pacific Coast had become the greatest grain exporting zone in Canada. This administered a very rude jolt to the people of eastern Canada, who in general had not been keeping a close enough eye upon western developments and who rested in the comfortable assurance that the long established grain route would always prevail and that the position of Montreal was fixed for all time as the greatest grain shipping point in Canada.

Then, as frantic investigation was instituted into

Definitely in that crop year the Pacific zone surpassed the Atlantic in importance in handling Canadian grain for export, and in the same regard Vancouver left Montreal behind.

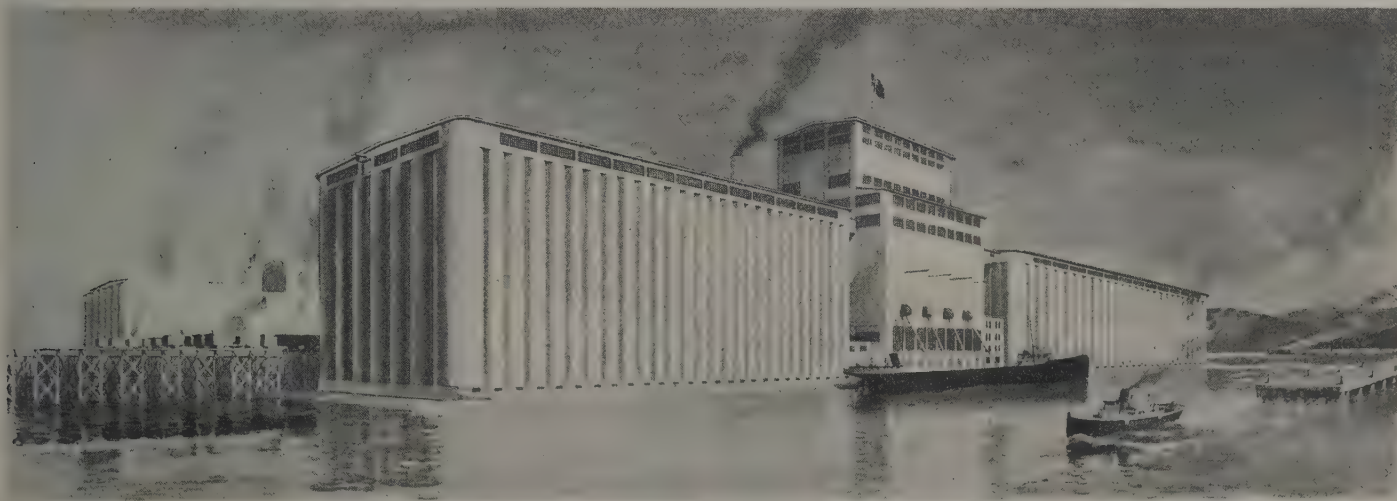
The effect of this upon the prestige of Montreal as a grain shipping center is apt to be misunderstood and overestimated. Montreal would still be a great grain exporter, far exceeding Vancouver at the present time, if it did not receive a single bushel of Canadian grain. Its claim to be the greatest grain shipping point in Canada, or in the entire world, rests to a very large extent upon the volume of United States grain it handles, this amounting in the year 1927 to 47.3 per cent of the total. This is a factor which does not contribute to grain trade development at the Port of Vancouver. In that year in its brief seven and a half months season, Montreal shipped 194,435,569 bushels of grain, a volume nearly two and a half times as great as Vancouver in its 12-month season.

At the same time the season which saw the movement of the 1927 crop was in some respects unusual, the Province of Alberta, the territory from which Vancouver logically draws, having an exceptional crop, its wheat representing 42 per cent of the total Dominion yield. The complete calendar year 1928

Canada can scarcely point to a greater revolution in the post-war period than that effected in the status of her great Pacific port and certainly to no more unexpected development than that of the grain trade out of it. Traffic in grain with Europe was quite un contemplated until in 1920, by way of what appeared to be a reckless experiment, a boatload of wheat was shipped from Vancouver to Liverpool, it being the general conviction that it could not pass through the torrid Panama Canal zone without sustaining serious injury. When it arrived in sound condition it was dimly realized that a new phase of ocean traffic had opened up for the Pacific coast, though probably few people foresaw the proportions this business would attain and how it would revolutionize what had long been accepted as the logical route for western Canadian grain to take for export outlet.

Vancouver immediately became feverishly busy fitting herself for the new role it was called upon to play, to put itself in shape for the new traffic it began to attract to it—establishing handling facilities and expanding a quite insignificant storage capacity. Before the end of 1921 more than 2,000,000 bushels of grain had passed through the port and in the next year about 6,000,000 bushels. It became clear that the Panama-Pacific route for grain to Europe was to be permanent and English grain companies established at Vancouver and English grain brokerage houses opened branch offices there. A grain exchange was established holding daily sessions to transact all grain business and set the prices for coast grain.

Then another factor made its influence increas-



UNITED GRAIN GROWERS TERMINAL ELEVATOR AT PORT ARTHUR, ONT.

the claim, it was explained that there had been a misunderstanding. What Vancouver claimed was that in the past crop year she had handled a greater part of the Canadian grain crop than had Montreal. Montreal denied this but produced figures which left so small a margin as to scarcely be assuring. They brought forcibly home to complacent easterners who had not been studying trends that something quite revolutionary had been happening in the grain trade.

Then the figures of the Dominion Bureau of Statistics came out, the only ones which could be accepted for impartial judgment. They left no doubt as to the justice of Vancouver's claim to have in that crop year wrested from the eastern port premier position as an outlet for Canadian grain. In the crop year ended August 31, Canada exported 338,442,484 bushels of grain of all kinds. In percentages United States ports handled 48 per cent of this, Canadian Pacific ports 28 per cent, and Canadian Atlantic ports 23 per cent. Passing out through Canadian Atlantic seaports was a total of 81,874,371 bushels and through Canadian Pacific seaports 87,366,178 bushels, giving British Columbia the leadership by some 5,500,000 bushels. Vancouver, the leading Canadian port on the Pacific, exported some 79,714,512 bushels in the course of the crop year while Montreal, unapproached among eastern Canadian seaports, shipped 66,615,081, behind its neighbor by more than 13,000,000 bushels.

furnishes a fairer basis for comparison, and reviewing this it is clear that Montreal is not yet ready to completely surrender its premiership as an outlet for the Canadian grain crop.

In 1928, Montreal set up several new records, among them the receipt and delivery of 423,570,557 bushels of grain in its season of 215 days. All former export records were broken with 210,531,181 bushels of all grain leaving the country as compared with the previous year's record of 194,507,540 bushels. The total of all Canadian grain shipped was 144,445,240 bushels as compared with 98,216,686 bushels in the previous year, this representing 68 per cent of the total export movement. All American grain exported amounted to only 62,687,618 bushels as compared with 92,636,288 bushels the year before, this representing 29 per cent of the total. The small percentage unaccounted for is explained by Argentine corn shipped.

In its 12-month open season, Vancouver, in 1928, fell short of attaining its objective of exporting 100,000,000 bushels, its aggregate shipments by the end of the year being 97,394,934 bushels, this being more than twice the volume handled in 1927. It was, however, less than half the grain exported by Montreal, which port handled about 50,000,000 bushels more of Canadian grain alone, and even more Canadian wheat than all Vancouver's shipments.

This, of course, in no way belittles Vancouver.

ingly felt—grain buying from the countries of the Orient which were turning increasingly from rice to wheat as a staple food and favored the Hard wheat of Canada over the softer varieties of the United States. Vancouver's dream became yet more expansive and her ambitions grew. There followed a vigorous agitation for a reduction in grain rates westward which resulted in an application to the Railway Commission and concessions which considerably enlarged Vancouver's territory by making it as cheap to ship grain from any port of Alberta and a goodly part of the province of Saskatchewan to the Pacific coast as to the Head of the Lakes. There was accordingly nothing to prevent Vancouver from eventually securing one-half of the Prairie Provinces' exportable crop.

Since that time this has been its aim which it has never for a moment lost sight of. It has been hectically adding to facilities and increasing storage capacity in a frantic race with the steadily increasing flow of grain traffic coming to it. Substantial increments in the volume of grain handled have corresponded almost exactly with greater ability to accommodate, until in 1928 it fell just a few bushels short of its objective of 100,000,000, making it the second ranking grain exporting port of North America. Just how much further this development can go it is hardly possible to determine though with the bulk of Canadian grain still moving through the United States it is clear that

possibilities are far from having been plumbed.

It is interesting and significant to note that despite the growing volume of grain going out by way of Vancouver, shipments of Canadian grain out of Montreal tend to increase, those of the year 1928 being 47 per cent greater than in 1927. There is every indication that this tendency will be accentuated in the future through the greater diversion of that huge volume of Canadian grain passing out of the country at the present time to destination by United States ports.

The great factor in effecting this will be the completion of the Welland Ship Canal, which it has been promised will be in operation in 1930. Briefly, this will permit the passage of the large Lake Superior ships up to 24-foot draught carrying grain from Fort William and Port Arthur, which now ply as far as the Detroit River only, from Lake Erie to Lake Ontario, so that they will be able to come up the river St. Lawrence as far as Prescott which is only 115 miles from Montreal. Unloading cargoes of grain there this will be transferred to 14 foot draught boats to be taken up to the great gulf port. Additional facilities in the way of giant elevators and additions to the docks are already being provided at Prescott.

The direct result of the operation of the ship canal will be the passage of a greater amount of grain from the Canadian prairies through Canadian channels for export. The construction of the elevator at Prescott will obviate the possibility of discharge at ports in New York state, transportation between Prescott and Montreal involving nothing more than a switching proposition. It is likewise probable that after the close of the river a large quantity of grain will be moved down by rail as demands at Montreal can be met in this manner by Prescott within six hours.

At the same time, it is necessary to take notice of the increasing use of the combine reaper-thresher in western Canada, which seems destined to become a factor of increasing importance in favoring the eastern Canadian route for grain. At the 1928 harvest there were 3,657 of these machines in operation in the Prairie Provinces. Their use elim-

inates the ordinary delay between harvesting and threshing, permitting the grain to move from the field to the railway as soon as cutting commences. This will enable the railways to start moving the crop, it is estimated, about two weeks earlier than has been the case, which will permit a greater proportion of the grain crop to move out of the country before the close of navigation on the Great Lakes. It is significant that as a rule more than half the grain crop exported leaves Canada between the commencement of the crop year on September 1 and the end of December.

Eastern Canada must perforce bow to the enterprise and progressiveness of the Pacific Coast which in so short a time has wrested for itself so large a share of the Dominion's grain business. This it can do without envy or embarrassment. In the present situation Canada's exportable crop is destined to split east and west for movement to outlets, and the accomplishment of the Pacific Coast is all to Canadian benefit as tending to retain a greater part of the traffic in Canadian grain for Canadian ports and bring about something nearer an equality in the volume of each other's grain handled by the ports of Canada and the United States.

At the same time it is interesting to note that neither Montreal nor Vancouver appears to have apprehensions as to possible damage to its prestige from the development of a yet newer grain route, but keep right on planning for the future. During 1928 Vancouver completed two elevators, adding some 3,000,000 bushels to the capacity of the port. It now has a total capacity of 10,700,000 bushels and is equipped to handle 100,000,000 bushels of grain in a season without undue strain. The outstanding development of 1929 will be the establishment of a grain elevator with 500,000 bushels capacity and a flour mill with a capacity of 2,500 barrels per day, at a cost of \$1,000,000. Expansion at the Port of Montreal is similarly unceasing. The completion of an elevator in 1928 brought the port's storage capacity up to 15,000,000 bushels, Montreal and Vancouver apparently look to a steady continuance of their friendly rivalry.

Hints for the Elevator Millwright

Roller Bearings in Grain Elevators—What Roller Bearings Accomplish, and How They Do It

By JAMES F. HOBART

"HELLO, Mr. Davis, where are you going with that grip?"

"Up to my room. I'm just getting home from a trip."

"Just put that grip in my car and go home with me. The fishing is mighty fine just now, and we have got any quantity of live bait in a tank built outside of the elevator flume."

"Oh, yes, but there is an African in the woodpile somewhere. What do you want done, anyway?"

"That's all right, 'Big Bill', I thought between times when you were not fishing, you would help me dope out a line of roller bearings all through my grain elevator?"

"So, that's the cat in the meal, eh? Well, I reckon we can say about all there is to say about roller bearings, right here, as well as out at your elevator."

"Now, look a-here, Mr. Stevens, you just park that automobile right now and come up to dinner with me at the hotel and we will put roller bearings under the whole bill of fare. Then, if you think the fish are still biting, I'll go home with you!"

"Now, Mr. Stevens, while we are waiting for the soup, tell me why you think you need roller bearings on the machinery in your elevator?"

"Why, to save power, of course! The other day, I was in a little flour mill in Indiana, that had been remodeled and fitted with roller bearings throughout the entire mill. An overshot water wheel was driving the machinery so evenly and smoothly that the owner of the mill said it 'always ran like a sewing machine'. I would like to see my grain elevator running as easily and nicely as that flour

mill did; and it seems to me that the power saved would soon pay for the roller bearings. It surely cannot be a very expensive job to remove the old soft metal linings, clean out the boxes, and slip in roller bearings."

"Look-a-here, Mr. Stevens, you can't do that, not even if you bore out the old journal bearing castings, for not one of them in 20 would stand boring off, and even then would not fill the bill very well. Besides, the cost of refitting the old castings would be greater than the cost of new castings, already fitted with rollers. Now you just throw away the idea of fitting over the old castings for the reception of rollers. Just you figure on entirely new bearings, with rollers properly fitted inside of them."

"Now, just hold on a minute," continued Big Bill Davis as he treated his lettuce to another portion of salad oil. "Before we go to figuring out what sizes and kinds of roller bearings you will require in your elevator, let's take a little flier in cost fixing and see where a saving can be made by putting roller bearings into your elevator. Mr. Stevens, you say you have four motors in your elevator, of five horsepower each. And how much power do you expect to save by putting in roller bearings?"

"Why, it seems to me, I ought to save at least a half a horsepower in each motor."

"That would be two horsepower saved. Now, you say electric current costs three cents a kilowatt. As it requires the consumption of 746 watts for each horsepower, the cost is about 8/10 of three cents, or 2.4 cents per horsepower hour. A saving

of two horsepower means 4.8 cents and as the elevator runs 10 hours per day, the saving is limited to 48 cents a day. Now, go ahead and calculate the cost of the roller bearings and see how much money you would save in a year on 48 cents a day, after paying for the roller bearings."

"By George, Mr. Davis, there isn't much of a margin to get rich quick on, is there?"

"No, Mr. Stevens, and what is worse, your little elevator probably does not use more than one-half its motor power except in pinches. Therefore, it will be a still smaller margin of saving than calculated."

"Then, Mr. Davis, you do not think roller bearings will pay in grain elevators?"

"I do not say that, by any means, Mr. Stevens, because there is so much else involved. There is insurance and peace of mind to be considered. These factors make it worth while even if the actual power savings do not pay for the installation. I do say, however, that were you erecting a new elevator, it might actually pay for itself in power saved to install roller bearings throughout, in machines as well as in the power transmission. In that case, you would have to pay for bearings of some kind and it should prove profitable to invest the slightly larger amount necessary to purchase roller bearings. The point I am trying to make is, that were you to put in roller bearings now, you would have paid for plain and roller bearings together. Whereas, were you to put in roller bearings in a new elevator, you are paying for roller bearings only, thus, as it were, saving the cost of plain bearings from what it would cost you to make the change now. In that case you would have to figure the 48 cents current saving, or whatever amount it may be found to equal, against the interest on the cost of roller bearings, less the cost of plain bearings. Whereas now you will have to make the 48 cents show a profit when charged against the interest on the cost of roller bearings throughout the elevator. If, Mr. Stevens, you can figure—and prove your figures—to show a saving balance in that manner, then it may pay you after all, to install roller bearings in your elevator."

"Now, then, get busy and dig right down into things. Determine whether the saving is four cents, less, or more. Then balance that saving against the interest on the roller bearings cost—including the cost of making the change and then you will have the matter reduced to brass tacks."

FIGURING THE RECEIVING ELEVATOR

"Mr. Davis, in a remark made sometime ago, you stated that 746 watts equalled or made one horsepower. It's not clear to me how the watts do it or how they are applied to motor-power calculations. I wish you would make the matter more plain to me, so it would more intimately fit my elevator. Please tell me how to figure the current and power required by the receiving elevator which is 75 feet high and was sold to me as having a capacity of 2,000 bushels of wheat per hour."

"To be sure, Mr. Stevens. Glad to do so. But how large a motor is connected to your 2,000-bushel elevator leg?"

"It is a five-horsepower motor, Mr. Davis."

"Umph! It seems to me that the motor will have to 'hump itself' if it were ever called on to actually handle 2000 bushels of grain an hour. Did the elevator ever stop when you crowded it?"

"No, but it slows down considerably and the motor seems to be working heavily."

"I should say it might slow down! Well, we will figure through that leg, and then you will have, perhaps, an idea of what the motor has to do, and whether or not it is adapted to its work."

"That will be fine, Mr. Davis, but before you start with the elevator will you kindly settle the 'why' of 746 watts equalling one horsepower?"

"Sure I will, Mr. Stevens. The horsepower which any electrical current can develop depends upon its voltage and the number of amperes which pass through the motor. When the number of volts and amperes are multiplied together the product is known as *watts*. And measurements will show that 746 watts will equal, develop, or yield, one horsepower in an electric motor. Consequently the num-

ber of amperes required to yield one horsepower, depends in any case upon the voltage of the 'juice'.

"In the case of your elevator, Mr. Stevens, divide 746 by 220, the voltage used, and it will be found that about 3.38 amperes of current is required for each horsepower developed by the motor. In addition to this, however, will be whatever current is consumed or absorbed in the motor itself, and in friction of the bearings, by stiffness of belts, etc. In case only 110 volts are used, the current required will be twice as heavy, or about 6.78 amperes.

"Should you find it possible to use street railway current of 550 volts or more, then the amperage necessary, will be correspondingly reduced, amounting to only about 1.32. Thus the higher the voltage

—within limits of course—the smaller the motor required as a smaller and longer wire can be used in the winding of the motor fields and armature."

HOW TO FIGURE POWER

"Mr. Stevens, the proposition is to lift 2,000 bushels of grain a height of 75 feet in one hour. Assuming a weight of 60 pounds per bushel, it means that 2,000 pounds must be raised 75 feet in one minute, 75x2,000 equals 150,000 foot-pounds. As 33,000 foot-pounds is equivalent to 1 horsepower, divide 150,000 by 33,000. This gives 4.53, which is the horsepower required to barely lift the grain and leaves nothing for friction, losses in motor or elevator, etc., and indicates that a five-horsepower motor would be hard pushed to deliver the goods."

The Argument for Higher Tolerance in Protein Checks

Based on the Latest Data of Official Wheat Inspection and Protein Tests in Kansas

By JOHN H. PARKER,

Agronomist, Department of Agriculture, Manhattan, Kan.

BUYERS of wheat and flour in the United States will find much to interest them in the recently issued biennial report of F. M. Fink, Chief Grain Inspector of Kansas. Some idea of the extent of the grain inspection service in Kansas may be gained when it is said that the fees received during the biennium amounted to about \$656,000. The average cost per car for these inspection services is about 82 cents with an additional 76 cents for weighing.

The combine harvester thresher has brought important changes in the marketing of the Kansas wheat crop. About 15,000 of these machines were used in Kansas in harvesting the 1928 crop. Ten years ago there were fewer than 2,000 in use. Combined wheat is rushed to market during July and August, causing heavy burdens on the railroad, grain elevators and inspection departments. During the month of July, 1928, the Kansas State Grain Inspection Department inspected 52,000 carlots of grain, which exceeded by nearly 25 per cent the highest record of any month in the history of the department. The Kansas City market received nearly 35,000,000 bushels of wheat in that month, which broke all records for that market.

"MILLABLE" WHEAT VOLUME HIGH

The chart on this page shows the percentages of the total receipts of wheat at Kansas City that were classed in each of the five numerical grades and of the very inferior wheat that graded "sample," for the period 1920 to 1927. The percentage of No. 1 wheat was lowest in 1922 and 1923, and highest in 1926. A good proportion of the wheat received at Kansas City always grades No. 1, 2 or 3. Any of these grades will ordinarily be of acceptable milling quality, though of course there is considerable variation in protein content and in other factors influencing milling and baking qualities, even within the same numerical grade.

Kansas has about 22,500,000 acres under cultivation, a greater acreage under the plow than any other state in the Union except one. From 10,000,000 to 12,000,000 acres are sown to Winter wheat each year. During the last 10-year period the annual production of Winter wheat in Kansas, mostly Hard Red Winter, has been about 124,000,000 bushels. In 1928 the crop was about 177,000,000 bushels. More was in the fields if it could have been saved from injury and loss due to an unusually wet harvest.

Because of the vast amounts of high quality Hard Red Winter wheat available in Kansas, several of the largest milling companies, such as Washburn Crosby and Pillsbury, have constructed or purchased mills in this territory and the milling business of the state in recent years has grown more rapidly than any other manufacturing industry. The state of Kansas now ranks second in flour mill capacity, being exceeded only by the state of Minnesota. There are about 170 flour

mills in Kansas with a daily capacity of about 95,000 barrels or 400,000 bushels of wheat. During the year 1927 these mills operated at 62 per cent of their full capacity, based on 300 days per year, with a total flour production of 16,512,000 barrels, which required about 75,000,000 bushels of wheat.

The elevator and mill storage capacity of wheat at Kansas City is now about 45,000,000 bushels and further additions are planned to handle the 1929 crop. Kansas has had a terminal warehouse law for many years. In 1921 a law was passed by the Kansas legislature providing for local public ware-

can be safely classed as an absolutely unqualified success.

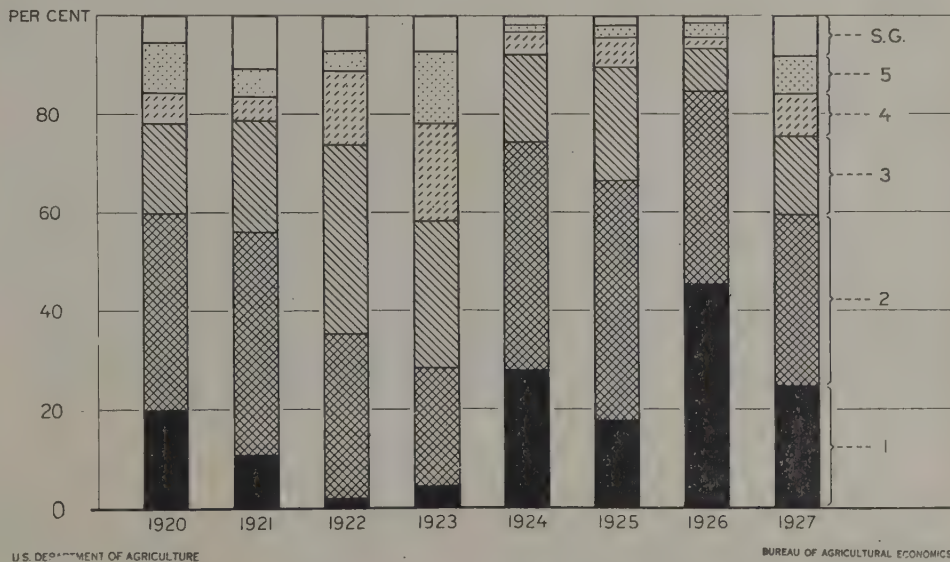
One of the most difficult of these problems is that of sampling. Wheat of the same variety taken from several parts of the same field will vary considerably in protein content. The grain from several farms is commonly bulked in the elevator bin and then loaded into the same car. This grain may be of the same market class and sub-class, and may appear uniform, and yet vary considerably in protein content. The sample used for laboratory analysis consists of only one gram of wheat, or about fifty kernels. An average carload of wheat contains about 1,250,000,000 kernels. Securing two samples from the same car that will show exactly the same protein analysis is obviously next to impossible.

VARIATIONS IN PROTEIN TESTS

Another difficulty is that of keeping the laboratory methods and technic standardized so that different chemists will check reasonably closely on the protein tests of the same sample. The Kansas City cereal chemists maintain a monthly check on their work by means of uniform testing of the same samples by all the members. The usual variation between the high and low tests is about 49/100 of 1 per cent. Considering the difficulties of sampling and of analysis, it is probably impractical to obtain results that check any closer than a fourth of 1 per cent. In fact it is not desirable to report protein analyses in the second decimal place at all. Yet the grain trade, in years of high protein premiums, insists on paying premiums and making discounts for differences in protein reports as small as a tenth of 1 per cent. A greater degree of tolerance would seem to be desirable.

The average protein content of the Hard Red Winter wheat grown in the Southwest varies from year to year, and is greatly influenced by seasonal conditions. In 1923 it was approximately 12.4 per

RECEIPTS OF HARD RED WINTER WHEAT INSPECTED AT KANSAS CITY 1920-1927 (CROP YEAR BEGINNING JULY 1)



houses. Under this law the number of licensed local warehouses is increasing, and there are now more than 200 in the state.

PROTEIN TESTS FIRST MADE OFFICIAL IN KANSAS

The Kansas State Grain Inspection Department was the first inspection department in the United States to establish official protein laboratories. Three well equipped protein laboratories were put in operation in 1922. These three laboratories are now testing more than 85,000 cars of wheat annually.

Members of the grain and milling trades are fairly well suited with the present working of the protein test. Farmers feel that they are not getting their fair share of protein premiums. The merchandising of wheat on the basis of the protein test as well as on grade is an improvement over the old methods of marketing, yet several difficult problems must be solved before the protein test

cent, in 1924 about the same. In 1925 the average protein content was higher, about 13 per cent. The 1926 crop had about the same average protein content. The 1927 crop averaged somewhat lower in protein content, about 12.3 per cent. The first four months run of wheat of the 1928 crop averages only about 11.9 per cent protein.

These variations in the protein content of Hard Red Winter, with the similar variations in Hard Red Spring wheat, materially affect the premiums paid for high protein wheat. In years when the crop averages high in protein content, premiums are apt to be low, while in years when the general crop is low, protein premiums are likely to be high.

In 1923 the average range in values between wheat with 11 per cent protein and 14 per cent protein was about 16 cents per bushel. In 1924 it was about 14 cents. In 1925, a year of average higher protein wheat, the range in prices dropped to about six cents. In 1926 the range was only

about three cents, on the average. In 1927, on the other hand, there was a mad scramble for high protein wheat. Premiums increased by leaps and bounds and in some cases were almost ridiculous. The range of prices between low and high protein samples was about 24 cents as an average. At the peak of the demand for high protein milling wheat in the spring of 1928 it was 36 cents, and some extremely high protein samples sold at a premium of 48 cents per bushel.

The Kansas State Grain Inspection Department has now had six years' experience in operating official protein laboratories. It is believed by those in charge of this technical service that the protein test more nearly reflects the true milling value of the wheat than the old system of buying on grade, color and point of origin. It is believed that the protein test has come to stay, but at the same time it is realized that every effort should be made to improve the methods of sampling and further to standardize the laboratory methods and technic, so as to lessen the variations in reports of protein content of the same bulk lots of wheat.

In July, 1928, the protein laboratories of the Kansas State Grain Inspection Department at Kansas City and Hutchinson tested samples from 2,016 cars of wheat. A sample from each of these cars was analyzed in both laboratories. The variations in results as reported from the two laboratories are as follows:

Amount of difference ..	0	.05	.10	.15	.20	.25	.30	.35
Percent each group is of whole.	11.8	24.1	20.5	13.7	9.2	5.7	2.7	3.0
Amount of difference ..	.40	.45	.50	.55	.60	.65	.70	.70
Percent each group is of whole.	1.7	1.5	1.4	1.0	.4	.5	.4	1.4

These results indicate that in about 56 per cent of the cases the two laboratories check within a tenth of 1 per cent, and that in 35 per cent of the cases the two reports check within a quarter of 1 per cent. Thus, if farmers and the trade would come to realize and accept the fact that a tolerance of a quarter of 1 per cent should be allowed, there would not be very many cases where retests would be called for. As long as the trade insists on having protein reports check down to the fine point of a tenth of 1 per cent, there will certainly continue to be frequent controversies and appeals for retests on protein.

FARMERS FIND WISDOM AND PROFIT IN SOLOMON

Kansas is hot in the summer. And on July 29, 1928, Solomon, Kan., was doubly hot. Not only were the fields and town sun-scorched, brown, but the Farmers Union Elevator was fire-scorched, the main building ruinously blackened.

Between then and now there are two other dates important in Solomon, Kan. One is October 15, 1928, for on that date the Farmers Union Co-operative Business Association began rebuilding their elevator. The second is December 18, 1928, when the rebuilt plant was completed.

The association took advantage of its misfortune and now has a plant fully equipped to meet its needs, according to C. E. Chase, superintendent and manager. Within dimensions of 32 by 44 by 42 feet, contractors have put up a plant that receives and ships 2,000 bushels per hour.

Box ironclad construction is used. Storage is in 10 bins, with two for grinding bins. The total storage capacity is 26,000 bushels.

Cleaning is done in a "Eureka" Separator, giving the plant a cleaning capacity of 1,000 bushels per hour. Four electric motors, Fairbanks-Morse, of 45½ horsepower, furnish power. A belt drive is used for transmission with the exception of the elevator power which goes through a modern head gear drive. A special distributor head controls distributing operation.

A Western Corn Sheller, with a capacity of 400

to 600 bushels per hour, and one feed grinder with a 200-bushel per hour capacity are employed. To unload, a compressed air dump, a bin and chute to the big elevator are used.

Two scales, a wagon and an automatic, the former made by Fairbanks-Morse, are installed. And the association depends upon the Solomon fire department and extinguishers for fire protection.

Since organization of the Solomon Farmers Union Co-operative Business Association in April of 1921, at which time the elevator was built, the company has enjoyed a steady, growing patronage that demands from them several sidelines as well



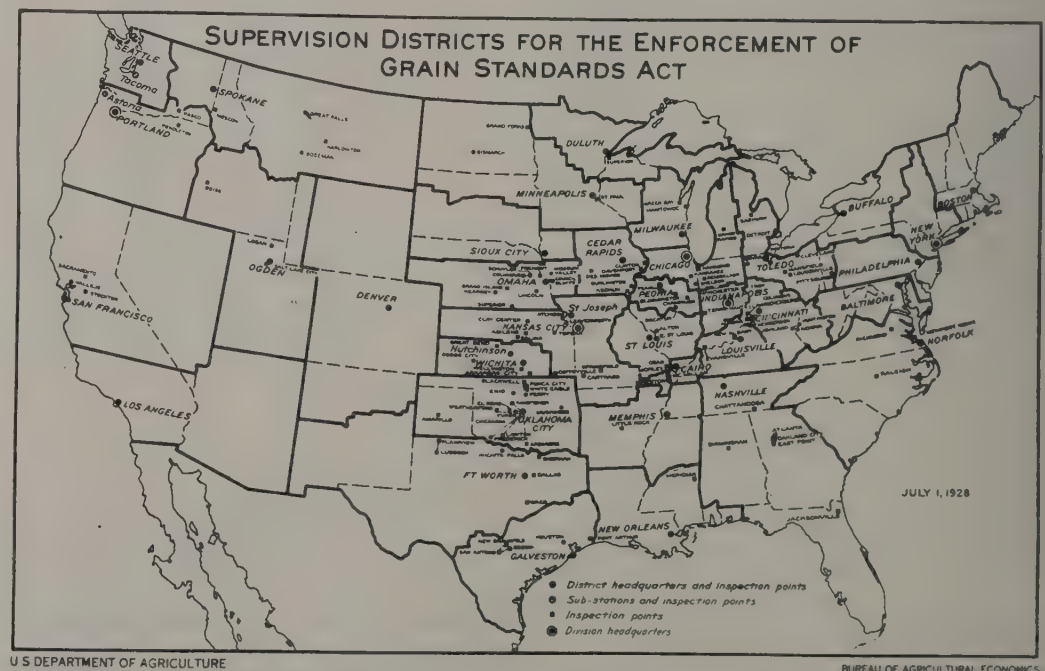
THE FARMERS UNION ELEVATOR, SOLOMON, KAN.

as wheat, kaffir corn, corn, oats, etc. Flour, feed and coal are handled, and Mr. Chase asserts that the most profitable sidelines are feeds, mashers and mixed chicken and hog feeds. A total of 500,000 bushels are handled each year.

Solomon is located in east-central Kansas, and gives the Farmers Union Elevator the additional benefit of three railroads, the Union Pacific, the Santa Fe, and the Rock Island.

WHERE INSPECTORS MAY BE FOUND

The map entitled "Supervision Districts for the Enforcement of the Grain Standards Act, July 1, 1928," shows, (1) District headquarters and inspection points at which a Federal grain supervisor is located and also a grain inspection department;



tion points at which a Federal grain supervisor is located and also a grain inspection department; (2) Substations and inspection points covering small outside inspection points at which a supervisor is located but at which no office is located for the filing of appeals; (3) Inspection points at which no Federal representative is located, but at which a grain inspector licensed under the provisions of the United States Grain Standards Act maintains

an office to inspect and grade grain.

Licenses were first issued to inspectors to grade shelled corn, during 1916. At that time there were 267 inspectors located at 64 points. Since that time the number of grains for which standards have been established under the United States Grain Standards Act has increased to eight. The number of inspectors has increased to 466, and the number of markets at which inspectors are located to 131. This is approximately double the number of inspectors and inspection points recorded for 1916. The increase in inspection points has been greatest in the grain producing territory, especially in the Hard Winter wheat region. This increase in the number of inspectors and inspection points has not occurred through action of the Federal Government, since no inspectors are employed by the Federal Government, but all are employed by states, trade organizations, or inspect grain on a fee basis. The extension of inspection facilities has been in response to a demand for the services of licensed inspectors and new inspection points have been established by states or trade organizations.

RYE PRODUCTION IN 1928

The 1928 rye production in 26 Northern Hemisphere countries has been reported this month at 939,056,000 bushels against 868,399,000 bushels in 1927. The combined crop in 24 European countries was 882,672,000 bushels against 795,284,000 bushels in 1927, an increase of 11 per cent. The first estimate of the 1928 crop in Sweden places the crop at 17,160,000 bushels, an increase of 12.9 per cent over the 1927 crop. The crop in Spain is now estimated at 16,398,000 bushels, over 8,000,000 bushels less than the previous estimate and 10,000,000 bushels below the 1927 crop.

CONTINENTAL GRAIN MARTS HAVE QUIET TRADE

The European grain markets were generally quiet during the week ended February 28, a Government trade commissioner reports. Business on the German and Danubian markets, which has been slow owing to the difficulty of forwarding supplies by water, was better at the close of the week.

The Polish export duty on rye has not been removed as reported last week, but an export contingent of 590,000 bushels (15,000 metric tons) has been established up to July 31. The price of wheat at Hamburg declined one cent during the week to \$1.52 on February 27. The price of rye at Berlin also declined one cent during the week to \$1.24. The corresponding prices a year ago were \$1.48 for wheat, and \$1.43 for rye.

PLUNGER'S STORY IS TOLD

"Old Hutch," the most picturesque grain trade plunger in history, goes storming down the chapters of a new book, "The Plunger," by Edward Jerome Dies. Wheat pit history holds no more breathless moments than those when "old Hutch" was striking like a thunderbolt and lashing markets to his will.

Vivid scenes are made to live once more as the Chicago genius of the 'eighties dreams of world power, corners wheat, spends millions destroying enemies, and magnanimously feeds other millions back into the pit to avert a panic on La Salle Street.

Through the genius of this plunger, banks and insurance companies were established, the packing industry given feverish incentive, and La Salle Street made to hum with activity. The story depicts the economic and social conditions of an era which is just beginning to achieve enough perspective for judgments to be passed on it. It is a portrait of a period in which Chicago was rising to glory out of ashes. It is the story, too, of a new age when men no longer stake immense fortunes on vast holdings and fight duels with money bags, an age of competent, regulated speculation, in which commodity and stock exchanges serve the public, expedite commerce, and aid national prosperity. "The Plunger" is a contrast of the old and the new, with the dim figure of Old Hutch emerging out of a misty past and again strutting his brilliant day across the stage of the pit.

Mr. Dies, advertising man and member of the Chicago Board of Trade, has been associated with the administrative branch of the exchange for several years. His books and magazine stories have given him wide reputation both as an author and as a student of speculation. "The Plunger" is published by Covici-Friede, Inc., New York, and sells for \$3.

REBATE FOR CHILE "CO-OPS"

To aid in the development of a better marketing system for grain and other farm products, the Chilean government has enacted a law to foster co-operative agricultural societies, according to the Department of Commerce. Rebates on grain and other products shipped over the government-owned railroads will be allowed these new South American "co-ops."

LATEST WORLD WHEAT DATA

Revision of the Canadian estimates for 1927 and 1928 has made the most important change of 1929, in the statistics of the world wheat crop, according to the Bureau of Agricultural Economics. The 1928 Canadian estimate was revised upward nearly 33,000,000 bushels to 533,572,000 bushels, but the 1927 Canadian estimate was revised upward even more, making a total of 479,665,000 bushels, which is nearly 40,000,000 bushels above the previous estimate. The world crop exclusive of Russia and China is now estimated at 3,780,000,000 bushels, as compared with 3,605,000,000 bushels in 1927.

INSPECTION FEE AN ISSUE FOR WESTERN DEALERS

Kansas is not the only state where political administration of grain inspection fee funds is a source of trouble for grain dealers. Spokesmen for Washington State dealers claim that in their commonwealth the charges for official weighing and inspection are higher than in any other state.

The State of Washington provides no assistance from its general fund for the expense of its official grain weighing and inspecting, and when a surplus is built up from dealer fee payments, it is dissipated by switching it back into the general fund. The old army game.

Every department of the Washington State government, except the grain inspection service department, have at least part of their upkeep taken care of by the state treasury. Dealers and farmers, joined in protest, now are petitioning the

Evergreen State legislature to appropriate \$40,000 from the general fund to apply on inspection costs between now and 1931.

MONSOON BLOWS MOISTURE TO MOTHER INDIA'S GRAIN

Riding up on storm clouds from the Indian Ocean, the southwest monsoon in April will blow life into mammoth tracts of wheat, corn, barley, and rice lands on the great Asiatic peninsula, India. Surcharged with vapor from the sea, the monsoon's moisture will condense in torrents on the heights of the western Ghats mountains, and will feed the east-bound rivers which are the grainland arteries.

The southwest monsoon blows from April to September; the northeast monsoon comes out of Bengal Bay in October, and is not spent until March. They are the great regulators of Indian climate—and grain production. Seventy-billion pounds of rice, wheat by the hundred-million bushels depend on them. The harvesting and marketing of India's colossal grain crops are accomplished by methods that vary from the most primitive to the modern. A country grain market in a village along the Ganges stands in sharp contrast with the port storage facilities at Karachi. The Indian grain trade is only one of the Asiatic industries which have felt the impact of the western ideas brought by the British. The first results of this impact are apparent in the ports and in the larger primary grain markets of the interior. Elevators higher than the Buddhist temples. Mills that each year swallow the harvest from 100,000 acres of grain land. These are what the English have brought.

But back on the plateaus, and along the river

peals handled during the period of the last two fiscal years:

First, the grain trade is using Federal appeals more and more as insurance against the possibility of unsatisfactory deliveries on contracts. Mills and grain dealers frequently call appeals from inspections made by licensed inspectors located at distant market because they have no representative on the ground to examine the grain and advise them as to whether it is a satisfactory delivery. Such appeals are not called because the appellant located at a considerable distance has any reason to believe that the grain will not be properly inspected, but simply to make sure that every safeguard is provided.

Second, country grain dealers are to an ever increasing extent grading their carload shipments and notifying their agents in the terminal markets to call appeals when the grade assigned by the licensed inspector is not satisfactory. In this way the country shippers and receivers soon learn that they may win enough line grade appeals to be profitable.

Third, many large grain firms, millers and elevator companies now maintain analytical laboratories for the examination of all grain purchased. Appeals are then called upon the basis of the analytical results whenever it is believed that the grain has been overgraded by the licensed inspector, or is close enough to the grade line to be in doubt. This class of appeals has added considerably to the total number filed, especially in the Spring wheat territory.

Fourth, there is a pronounced tendency to call more appeals when there is a considerable percentage of low grade grain. When the wheat crop is all high test weight and contains little damage,



A COUNTRY GRAIN MARKET IN INDIA

valleys, progress is slow, and centuries have left unchanged the first crude sickles, flails and straw thatched storage huts. The average per capita disappearance of wheat in British India is next to the lowest in the world: 8/10 of a bushel per year. Yet of the 330,000,000 bushels of wheat produced there in a year, 314,000,000 bushels is consumed domestically. Only between 20,000,000 and 30,000,000 bushels are exported in a year. Much of the grain never gets more than a few miles from the small, and innumerable country markets.

GRAIN APPEALS TO FEDERAL SUPERVISORS

By FRED G. SMITH, Federal Grain Supervisor

The total number of appeals from inspections made by licensed inspectors under the United States Grain Standards Act to the Federal supervisor during the crop year ending July 1, 1928, was approximately 80,000. There have been increases of about 20,000 in the total number of appeals for each of the two preceding years. Several factors have contributed to the 100 per cent increase in total ap-

there is little to be gained by calling appeals, since the inspection accuracy is high. When there are several grading factors involved in the grading of any crop of grain and there is a considerable percentage of low grades because of such factors, as total damaged corn or stained in oats, more appeals are called in the hope that the grades will be raised.

Fifth, during the 12 years since the United States Grain Standards Act has been in effect, the grain trade has become much more familiar with the provisions of the Act and the procedure for calling appeals. Experience has shown that the appeal right affords assurance of accurate grading at any market and, for this reason, the trade has become accustomed to buying or selling grain in many more markets than was the custom before the passage of the Act. As an illustration, southeastern mills now buy considerable West Coast and Intermountain wheat, much of it on the basis of Federal appeals at the shipping point. While it is true that many appeals are called because the appellant believes that the inspector's grade is incorrect, most appeals are probably called simply as another check to make sure that the grain is properly graded.



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This paper has a large circulation among the elevator men and grain dealers of the country, and is the best medium in the United States for reaching persons connected with this trade. Advertising rates made known upon application.

CORRESPONDENCE.

We solicit correspondence upon all topics of interest connected with the handling of grain or cognate subjects.

Official Paper of the Grain Dealers National Association and of the Illinois Grain Dealers Association

CHICAGO, ILL., MARCH 15, 1929

THE NEW WAREHOUSE ACT

TO AMEND the Federal Warehouse Act, the House of Representatives has passed a measure this month which, with Senate approval and the President's signature, will prevent conflicts between state and Federal warehouse statutes. Through this bill, warehouse receipts will be collateral good enough to warrant the confidence of any bank.

Bankers have recognized, in a general way, the worthy purposes of the present Warehouse Act, but when approached to loan large amounts against the receipts, have pointed to Section 29, shook their heads, and registered misgiving. Under that section, the Federal Act becomes subservient to state law in event of any conflict between their provisions. To make the warehouse law of real service to farmers and to make it workable for warehousemen, it must be independent of all state laws on the subject.

SPRING FEED TRADE NEEDS SOME PUSHING

DURING the fall and winter the elevator's feed trade moves along almost by itself. Cold weather is a self-starter for this sideline. With the exit of ice and snow, and the entrance of pasture and spring weather, however, feed sales must be pushed if the volume is to be kept up satisfactorily.

In spite of all that has been said by experiment stations and feed manufacturers about the need of special spring feeds, many feeders still look upon the spring and summer months as the season when they will have to buy only

small quantities of feed. Pasture, they say, is cheap. It is. But pasturage is only a feed ingredient, and not a balanced ration. It must be supplemented by concentrates.

The results of feeding deficient rations may not become apparent for months. Having fared well on scientifically made feeds during the winter, stock or poultry of the elevator customers may seem to thrive on the simple pasture menu. But at the very time, in the fall or winter, when pork or milk or eggs are most wanted, the results of the irrational ration will begin to tell.

The doctrine of year 'round balanced feeding deserves to be put in currency in all elevator territory. It means more business for the dealer, and better results for the customer.

RECOIL

EVERY once in a while, even in the best grain producing territories, poor crops turn up. Is it a coincidence when an attack on the grading system comes simultaneously? If the system were radically deficient, how has it been able to ride along without protests in previous years?

Conservative members of the grain trade in a state or section temporarily afflicted by low quality grain, often are alarmed by the hue and cry set up by their neighbors. After the tumult dies down, and the smoke clears away, the net result often is only this: The attention of the whole trade has been focused on the off-grade grain. This does an injustice to the territory in question, and is advertising of the worst kind.

If some part of the national grain marketing machinery, and not the weather, is at fault, dealers and producers certainly should assert their rights. But unless they have an air-tight case against the system they attack, the recoil of opinion will do a lot of harm and no good.

GRAIN INSPECTION BY COUNTRY SHIPPERS

BY APPLYING grading rules more generally in their purchases from producers, country grain shippers not only would help farmers learn more about grain standards, but would eliminate much of the hazard from their own grain handling business. This is part of the argument being advanced by Federal grain supervisors in an effort to overcome the notion that grade analysis is something that has to be postponed until shipments reach terminal markets.

Grading by the Government is primarily for the farmer's protection. The nearer to him that it is made effective, the more directly does he benefit.

A grain shipper should know the grade and dockage of any carlot before forwarding. To accomplish this, he should always have a grain trier in readiness so that when a car of grain is loaded, he can immediately draw a representative sample of the entire load. With the usual grain grading apparatus, such a weight per bushel tester, moisture machine, kicker, sieves and scales found around country grain elevators, the operator can then determine the dockage, moisture, weight per bushel, and such

other factors as will decide the grade, as well as anyone, if only a reasonable amount of care is exercised. The operator will then know what to expect at the terminal.

A shipper who follows this procedure will always know whether to ask for re-inspection or appeal should the grade assigned to his grain at the terminal fail to meet his expectations, and by this means he will be in an excellent position to demand the true value of his grain.

"DON'T HAVE TIME TO READ"

ANOTHER month, and another death from a dust explosion, this time in a Minneapolis elevator. Fatalities and property loss from the dust hazard in elevators and mills keep steadily on. Cedar Rapids, Battle Creek, and Indianapolis are only a few of the more recent scenes of preventable dust explosions.

This record probably will be maintained until that troublous minority of elevator and mill operators wake up to facts that the Government, insurance companies, and the trade press have been trying to hammer home for 20 years. The managers and superintendents of this minority group frequently are of the type that "don't have time to read." They are the practical, self-made, self-sufficient fellows who have learned just about all that's worth knowing by their own experience in mills and elevators. Perhaps they partially redeem themselves in that their experience is a lesson to others.

THE ST. LAWRENCE ROUTE

THE POSSIBILITY of the United States becoming an importer instead of an exporter of wheat in the next 10 or 15 years is the thought advanced by a Canadian, Professor Duncan McArthur. This would result in much Canadian grain going south, instead of east, thereby decreasing grain traffic on the St. Lawrence River route. If all the reasons he gives for his opinion that the days of the St. Lawrence as a grain channel are numbered, were as flimsy as this, his prediction would not be worth consideration.

But other conclusions he presents are interesting. During the past few years exports of grain from Canada to Europe have increased because Russia's supply for export has been negligible. With agricultural recovery under Soviet rule, any surplus will be sold to Europe, and Canada's shipments to those markets lessened proportionately. He also points out that increased consumption of grain in the Orient, especially in Japan or China, will cause increased shipments of Canadian grain through Pacific ports.

The last-mentioned argument seems to be the only one about which the St. Lawrence shippers need to worry. Russian wheats cannot, for some time at least, compete with Canadian grain either in quantity or quality.

Special belting now is manufactured for quarter-turn drives. Where such transmission must be used in the elevator, trouble can be avoided by using the extra-flexible belts, and keeping them in good condition by reliable belt dressings.

EDITORIAL MENTION

Short selling of grain cannot be restricted without restricting long buying.

Caissons for the new Chicago Board of trade building are being sunk, Messrs. Caraway, Vinson, and Capper notwithstanding.

Robins don't make any difference. Spring is here because the first charters for lake grain shipping have been made. Montreal-bound wheat out of Duluth is signed up for 10 cents a bushel.

"Proposed tariff will advance molasses \$2 per barrel. Order now." That is the sales whip being used by many grain firms this month to push a sideline which seems to move fast these days, even if it is sticky.

Just in time for the special farm relief session of Congress, called for April 15, the Department of Agriculture has announced that farm bankruptcies are decreasing. Maybe the whole relief program better be called off, and well enough let alone.

United States tourists in Canada spend around \$300,000,000 a year, but this sum does not represent the only contribution which Uncle Sam makes to Dominion industries. In the calendar year of 1928 Montreal shipped 217,124,458 bushels of grain, of which about a third was produced below the border.

Vermont has the distinction of producing the least wheat of any of the 42 ranking wheat states in the Union. To the largest crop in nine years, Vermont contributed but 16,000 bushels in 1928, but furnished, nevertheless, about 80 per cent of the maple syrup with which the nation covered its wheat cakes.

Ex-secretary of Agriculture Jardine has accepted an executive post with the Federated Fruit and Vegetable Growers. As co-operative marketing is more or less of an obsession with him, there is no doubt but what this new connection with a "co-op" group will satisfy his hunger for anti-independent trade activity. The grain trade will miss him.

Private terminal elevators handled more than 100,000,000 bushels of pool wheat last year, says the *Northwestern Miller*. To pool representatives this is annoying, and hints have been made that there has been a conspiracy on the part of rail agents and private elevator operators to give the latter more cars than pool elevators got. All the pool has to do now is to prove it.

The Saskatchewan wheat pool is making another experiment in grain marketing. This month it is paying two cents per bushel for farm storage of wheat, and the Department of Commerce claims that in April a premium of three cents per bushel will be paid on wheat delivered to pool elevators, on pool wheat loaded over the platform and consigned to pool

terminals, and on pool wheat sent to line houses and consigned to pool terminals. This policy of making payment for farm storage is being followed this year for the first time, and results of the high-pressure plan cannot be determined until after the close of the crop year. We predict a glowing summary of its success.

When grain is thrown through a spout into car ends, the grain with the heaviest test weight per bushel is forced into the corners, while the lighter grain falls near the door. Then if the car is overloaded, and the car ends thus made inaccessible to the sampler, the whole car will be judged on the basis of the light-weight kernels. Use your own judgment about overloading.

CROSS SECTION NOTES ON THIS ISSUE

John H. Parker is a writer new to our pages, but not to the Kansas grain trade. His argument for a wider protein tolerance (Page 533) will interest Northwest and Southwest trade alike.

Bearings help make the grain trade run smoothly. On Page 532, this subject is treated by a man who's forgotten more about bearings than many elevator operators ever knew.

Refereeing the grain receipt contest of two great Canadian ports is Mr. Chicanot's job on Page 531.

About the newest grain handling plant in Chicago—right on the first page.

The why of Federal grade appeals. The official answer on Page 535 is prepared specially for publication here.

Look at the new official inspection point map—Page 534.

Hay, Straw, Feed, and Seed Departments:

Silver fox fur is quoted at around \$150 this month in Winnipeg. Feed for the bearers of this fashionable fur is the feature on Page 551.

Seed corn judging standards change. Keep up with the vanguard. Page 558.

P. S.: Wheat pools to the north have efficient press agents, but do you know that 75 per cent of Canadian elevator property is non-pool? Turn to the brief, fact-packed article on Page 541.

A friend of the Food Research Institute scolds us for using the unscholarly and un-academic word "blithe" in the following editorial paragraph last month:

The Argentine wheat crop, however, is evidently the unknown factor, x , upon which the expert opinion splits. The Government states: "The Argentine situation, unfortunately, is very uncertain." The Institute is more blithe: "Argentine and Australian crops are among the best ever harvested."

"There is nothing blithe or unblithe" about an Institute crop oracle, we are informed. We have put this in our pipe and are going to smoke it some time.

A petition for rehearing of the "gambling suit" brought against a Chicago stock and grain commission firm by the administratrix of a customer's estate, has been denied by the Illinois Appellate Court. The stock and grain brokers, say the judges, stood ready at all

times to deliver the actual grain or stocks bought, upon request. The brokers were not presumed to know, the court held, that the customer was simply speculating and never would require delivery. Even the law is against a "bad loser."

The *Emmanuele Accame* took a record volume of wheat into her hold February 27, at Baltimore, Md. Before sailing for Antwerp, she drained 448,582 bushels from various bins of three different elevators. If a shipload of that size were dispatched from one of our ports every day for a year, the total volume would be more than twice the volume of all United States exports in 1928.

The Governor of Montana has received a single grain of rice from the museum in Delhi, India, microscopically engraved with the following message: "Greetings to His Excellency, Honorable J. E. Erickson, Governor of the State of Montana, Prosperity and Happiness for 1929." Customs officials, with generous gestures, permitted its entry duty-free, and there have been no protests from rice associations.

"Pat" Covici, of the New York firm, Covici, Friede, Inc., publisher of Mr. Dies' "The Plunger," only recently shifted his headquarters from Chicago to Gotham. His Chicago office was only a few blocks from the old Board of Trade, but he had to go to New York before he met Mr. Dies, of Chicago, and discovered that the dingy old structure at La Salle and Jackson was the background of a story which promises to be a best-seller.

Correction: In our last issue, it was stated that Missouri and Kansas inspectors sit in on Federal grade appeals on grain in their states, and that the grade is determined by majority vote of the two state men and the Federal supervisor. The real situation is this: The Federal supervisors are still chief arbiters of appeals. When there is a question of mustiness or ground odor, however, the two state inspectors may insist that a sample be sent to Washington, D. C., for analysis.

The suit brought by a Chicago grain company against the Secretary of Agriculture, seeking to restrain enforcement of the Grain Futures Act, still is "under advisement" of the United States District Court in Chicago. It may be a month or a year before a decision is rendered. Lawyers for the grain firm stake much on their plea that "privacy is essential to business." Whichever side gets the decision, the case probably will be appealed, so the victory will be but an indefinite one.

The low farm price of oats again this season emphasizes the limited market for this grain and the desirability of restricting production for sale to localities where conditions are particularly favorable for good yields. Last year's acreage with average yields should not be expected to yield more profitable returns to farmers in the principal producing states than were obtained from the 1928 crop.

E. E. McCONNELL
Buffalo

NEWS OF THE TERMINAL MARKETS

G. E. BOOTH
Chicago

SIGNS OF SPRING

The radio announcer announces every few days that "spring is just around the corner" but just the same its cold enough here most every night to freeze the surface of the ground (15° above last night.) We do not claim that we have a backward spring here as yet, but our advices from most southern states are that oats seeding is around one month late there.

Wheat growers in this section are not sending in complaints of crop damage as yet, although March is usually the month when much alarm prevails regarding Winter wheat.

These days of bright sunshine and brisk March winds are reaching down into the corn cribs and taking a toll in moisture from the grain stored there. One notes a little larger percentage of No. 3 corn on the inspection sheets; this increase will continue as the sun gets higher and warmer. Corn from this section of the country will generally grade No. 2 as soon as it loses a few points more moisture.

Wagon roads are improving; a few farmers are now hauling corn to market, but the urge to get into the fields, to start the new crops on the way, will soon be on and it's unlikely that any large volume of corn will start to market anywhere in the near future.

Government reports of yesterday on farm reserves of March 1 shows that your Uncle Samuel has on hand a nice line of grains which his citizens are marketing in an orderly fashion. Wheat and oats each estimated at 21,000,000 bushels above a five year average. Corn 63,000,000 under.

Chicago May wheat and oats selling tonight about seven cents under last year—corn three cents higher. With the assurance that Congress will soon do that which it can, to help agriculture, grain owners are not pressing their wares for sale over much.

Oat feeding on farms continues; eastern and southern demand for same increasing slowly.—*H. I. Baldwin & Co., Decatur, Ill., letter of March 9.*

THREE GRAIN TRADE GROUPS EYE STOCK MARKETING

Unlisted security trading is attracting more grain dealers, either because of New York Produce Exchange and Chicago Board of Trade actions or, for the same reasons those two groups undertook such operations, the prospect of more business. "Golden Gate" grainmen, "Quaker City" traders, and "Forty-ninth State" dealers all have stock trading under consideration.

San Francisco

Fifty members of the San Francisco Grain Trade Association have recorded themselves in favor of forming a stock exchange, to be established similarly to those recently formed by the Chicago Board of Trade and the New York Produce Exchange. Membership would be limited to those of the association, banks and corporations.

The new organization would be known as the Merchants Exchange Stock Trading Association. The project was given form at a special meeting of the association March 1 when 65 members heard the report of their investigating committee.

The San Francisco Chamber of Commerce is opposing the organization, deeming the four stock trading groups now operating in the city to be enough.

Philadelphia

The board of directors of the Commercial Exchange of Philadelphia have approved an amend-

ment to their by-laws providing for trading in unlisted securities. The action was taken at a recent special meeting and is to be decided upon later.

Already alterations in the exchange's floor arrangement are being made to provide for this added business, contracts having been let. If the amendment is passed stock trading is expected to start April 1.

And St. Louis

A survey of security trading has been authorized by the St. Louis Merchants Exchange. Secretary C. B. Rader will make the investigation, and upon having his report the exchange will consider establishing trading.

With the experience of New York and Chicago grain organizations to refer to, and the impetus of San Francisco and Philadelphia activities, favorable action will probably be soon forthcoming.

C. B. RADER KNOWS HISTORY AND HAS ONE TOO

When men experienced in a business or profession speak thereof people listen, learn something. Such is the case when C. B. Rader, secretary and



C. B. RADER

treasurer of the St. Louis Merchants' Exchange, speaks on the history of grain marketing, as he did recently before Commerce and Finance Alumni of St. Louis University.

Also, when men are experienced in a business or profession they very likely have a history of their own. Such is the case with C. B. Rader.

Born and bred in St. Louis his business record took shape first in freight traffic duties for the Mississippi Valley carriers. Upon him depended the economic understanding to present to the Interstate Commerce Commission a variety of problems in rate adjustment.

Grainmen became familiar with him personally when he was secretary and traffic commissioner of the Denver Grain Exchange. It was while Mr. Rader was there that he was elected to the chairmanship of the Grain Products Committee of the Regional Advisory Board of the American Railway

Association. And the Denver Institute of Technology knew him as a staff member lecturing on marketing and transportation. So did the governor of Colorado, who appointed him to the Transportation Committee of the state. Not to be deprived, the mayor of Denver asked his aid on an advisory committee.

By this time not only history but prestige had begun. As a consequence the Wichita (Kan.) Board of Trade later had his services as secretary and traffic commissioner.

Still later Mr. Rader was to return to his home town to hold his present position. His is the pleasure of honor there as well as elsewhere.

GRAIN AND FEED EXHIBIT AT KANSAS CITY

An exhibit of hay, grain and feed, is being considered by the Kansas City Board of Trade. Such a show would be made a part of the annual live stock exhibition in Kansas City, famed "American Royal," if plans materialize. The "American Royal" is second in importance only to the International Live Stock Show at Chicago.

It is felt that the possibilities of such a show succeeding are good. The interests of stockmen in feeds is so vital a part of their business that the exhibit would form a logical, important part of the "American Royal."

NO BURDENSOME CORN SURPLUS

Nat C. Murray of Clement, Curtis & Co., Chicago, says that while wheat reserves are large (350,000,000 bushels), corn reserves are small:

"Stocks of corn on farms March 1 are estimated to be 14,000,000 bushels less than a year ago, or a total of 998,000,000 against 1,012,000,000 bushels. This is only 35.2 per cent of last year's production, which compares with 36.6 per cent held a year ago and a 1-year average of 40.0 per cent. The small reserves are accounted for by unusually early feeding of the crop due to shortage last fall of reserves from the 1927 crops; and also to the severely cold January and February necessitating increased feeding. It may be recalled that in our December 1 report we stated that reports from correspondents indicated that up to December 1 about 50,000,000 more bushels were used than to December 1, 1927.

"In the seven surplus corn states stocks are 626,000,000 bushels against 574,000,000 a year ago, an increase of 9 per cent; but in the other states stocks are 372,000,000 against 438,000,000 a year ago, a reduction of 15 per cent. The total apparent disappearance of corn in the four months from November 1 to March 1 is about 1,864,000,000 bushels against 1,857,000,000 in like period last year and 1,815,000,000, the average for the past 10 years."

HOW THE LONDON FUTURES MARKET WILL OPERATE

The London Corn Trade Association, an organization with a world-wide reputation in international grain trade affairs, according to *Milling of Liverpool*, is shortly to establish and control a c.i.f. wheat futures market in London. The market, it is hoped, will open for business early in March and will be located on the Baltic Mercantile and Shipping Exchange, which is situated in the heart of the banking, shipping and insurance center of the city.

Trading will be confined, in the first instance, to Manitoba wheats, the basis being No. 3 grade.

Sellers, however, will be at liberty to tender—at fixed price differentials—Nos. 1 and 2 and 4 grades, as well as the same four grades shipped from Pacific Coast ports; 1,000 quarters of 480 pounds each is to be the unit of contract quantity, and price fluctuations will be recorded in halfpennies per quarter, while offers will be made for shipment in a particular month.

Transactions will be made on a fast contract, based upon the existing c.i.f. contract, but with the necessary provisions to secure the materialization of profits and losses, the contracts being registered for clearance in the clearing house of the Association. Original margins of 1/- per quarter will be deposited with the clearing house at time of registration, while daily margins to cover price fluctuations of 6d per quarter will be called as required by the day's quotations. Operators will be afforded additional security through the agency of a contract insurance scheme. Market quotations will be published twice daily, namely a "call" price at 12 noon and a "closing" price at 4:15 p. m. Trading hours will be between 10:30 a. m. and 4:15 p. m., except on Saturday, when the market will close at 12:15 p. m. An official scale of minimum brokerages will be fixed for business in the wheat futures market.

The object prompting this development is to secure a broad, facile and free market in the wheats of perhaps the most important wheat importing country of the world—a market in which European merchants and millers, with security and ease, can hedge scientifically their commitments upon a c.i.f. basis, the conditions of which are so well known.

MILWAUKEE DISCUSSES CHANGE IN BOARD NAME

A movement has been started at the Milwaukee Chamber of Commerce to change the name to the Milwaukee Grain and Stock Exchange to include the new activity of the grain men which will be started shortly. Although the grain board has been known as the Chamber of Commerce for upwards of 70 years and although the Chamber is said to be the second oldest organization in the Middle West, it is believed now that the name should be changed to describe more closely the functions of the exchange when trading in securities is begun.

The Chamber of Commerce was founded on October 21, 1858, with 99 members. All the leading grain dealers of the city at that time joined the Chamber. The first quarters were on what is now the main street of the city on the site of Gimbel's store. At that time Milwaukee was one of the most important grain centers of the United States. The Chicago Board of Trade was organized just a few months before the Milwaukee grain exchange.

L. J. Higby was the first president of the association and one of its charter members. Another of the charter members was Robert Eliot who lived until 1917 and continued a member right up to his death. In 1863 the Chamber moved to its present location on the corner of Michigan street and Broadway. The present building was erected in 1880 by Alexander Mitchell and has been used by the Board ever since—a matter of 49 years.

Throughout the 70's Milwaukee had very large grain receipts. Then in 1881 Minneapolis and St. Paul started grain exchanges and this competition caused a period of depression in Milwaukee's grain trade. Then after 1900 a new period of growth in grain trade began which has largely lasted up to the present time.

VOLUME OF GRAIN FUTURES TRADING IN FEBRUARY

February grain futures trading in Chicago, despite the handicap of "shortest month," well maintained the high volume over last year that showed itself in January. The total for all grains was 1,146,549,000 bushels, well above the 1,119,566,000 of February, 1928, and favorable to the 1,630,016,000 of January, 1929. This February's total was divided among the grains as follows; for compara-

tive purposes the January figures are given in parentheses: Wheat, 743,378,000 bushels (909,187,000); corn, 340,898,000 bushels (636,665,000); oats, 40,466,000 bushels (37,142,000); rye, 21,807,000 bushels (27,022,000).

Average open contracts in futures in Chicago in February "short" side of contract only, there being an equal volume open on the "long" side, were: Wheat, 127,350,000 bushels compared with 86,679,000 in February of last year, and 118,503,000 in January; corn, 79,574,000 bushels, compared with 98,133,000 in February, 1928, and 68,461,000 in January; Oats, 26,288,000 bushels compared with 372,221,000 in February, 1928, and 25,896,000 in January; rye, 9,343,000 bushels, compared with 9,580,000 in February last year, and 8,783,000 in January. Average total for all grains this February was 242,555,000 bushels, compared with 231,613,000 bushels a year ago.

CHICAGO TRADERS' POST SALUTES WASHINGTON

Washington's birthday memorial exercises in Glenn Elyn, Chicago suburb, were made vivid, colorful, when the famed Drum and Bugle Corps of the Chicago Board of Trade Post, No. 304, of the American Legion, saluted Washington with military honor and peacetime reverence. And their past National Commander, Howard P. Savage, spoke on "George Washington and the American Legion."

Known as the "million dollar drum corp," the Board of Trade organization makes a special practice of lending itself to functions of a patriotic and

able for seed, and we can recommend consignments for this type of oats for Pennsylvania delivery here. Stocks of oats here are large, but are mostly of the No. 3 grade.

Ear corn arrivals have been very small, under an extremely light demand. An occasional car of clean, hand-husked Yellow corn can be marketed to advantage.

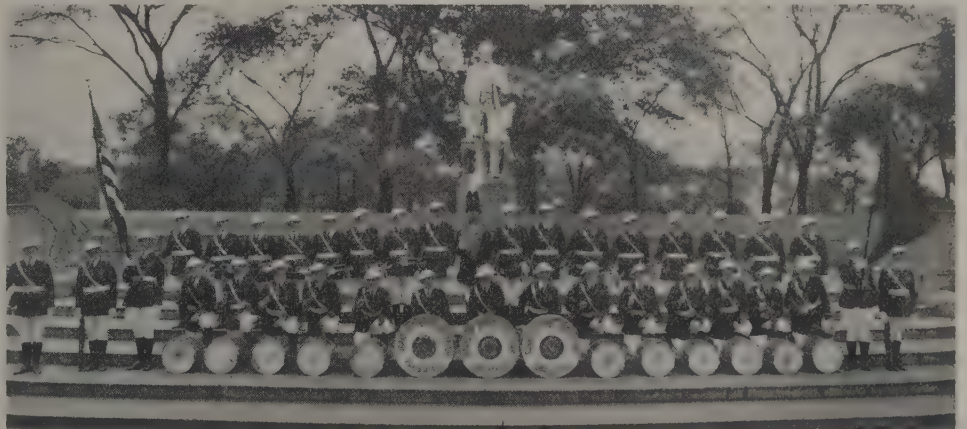
Railroads are moving cars very promptly, and shippers are advised to hurry papers on shipments, as many times cars arrive before bills of lading. Of course, now that we are approaching possible warmer weather conditions this fast movement of cars is very desirable as it has a tendency to eliminate the possibility of high moisture test corn deteriorating in transit.—Harper Grain Company, Pittsburgh, Pa., letter of March 12.

OATS DEMAND PICKING UP

Movement of old wheat nominal. Not much can be said of the new crop as we have had no growing weather up to the present time, and are still having freezes at night, keeping the ground too cold to start any growth.

Receipts of corn the past month here have been only fair, but enough to take care of all the demand and still leave some for storage purposes. Eastern demand from this territory has been nil, as territory east of us has been disposing of their corn on a lower basis than our local market. The industries have been buying daily and our prices are in line compared to other markets. We look for a good demand to continue.

Receipts of oats have been light the past 30 days,



"MILLION DOLLAR" DRUMMERS, BUGLERS AND ST. GAUDENS' LINCOLN, POSE TOGETHER

memorial character. Twenty of the 36 members pictured here are members of the Board of Trade; the full complement of the corps is 68 pieces.

PITTSBURGH MARKET HAS HEALTHY TONE

Demand for corn has been only fair in the past week, but offerings are not burdensome. Most of the corn arriving from country points is still grading No. 4 on account of the moisture, but considerable of this corn is running around 18 to 18½ per cent moisture, and such corn is being placed at a discount of ¾ cent for each ½ per cent excess moisture over 17½ per cent basis. Our market is netting shippers about 13¼ cents over Chicago March option, Philadelphia rate basis. Stocks here are fair but under lighter receipts, which, no doubt, we shall experience from now on, our market should remain in a healthy condition. Buyers, on account of the approaching warm weather season, are more interested in dried corn than the natural grades, and consequently the higher moistured test corn is finding its way to the driers. Consignments of corn to this market should all be billed for Pennsylvania Railroad delivery, in order to insure top market prices.

Demand for oats has been very small. Offerings from western terminal markets are below, in many cases, values that country shippers are demanding. There should be a fair demand in the next week or so for good heavy berry oats that will be suit-

but the demand has also been rather light. Prices have kept well in line with other markets. It looks now as though the demand for this cereal is picking up a little.—Mueller Grain Company, Peoria, Ill., letter of March 12.

CHANGES IN MEMBERSHIP

Chicago.—Membership transfers on the Chicago Board of Trade are: Herbert H. Girardet; Jilchi Inouye, John L. Patten, Arthur R. Stone, Arthur L. Logan, John W. Moore, Ernest H. Wichelman, Sidney J. Adams, Edgar R. Richards, Carroll B. Alker, Harvey E. Baxter, Edgar L. Rickel, Arthur E. Whitney, Ralph N. Ballou, William A. Howard, Thomas J. Gouldman, Christopher C. Crowell Jr., James L. Crump, Estate of James A. Patten, Jack C. Sturtevant, Gus K. Worms, James M. Hall, James R. Williston, Edward E. Bartlett, Jr. Admitted to membership: Matthew J. Hickey, Jr., Shinkichi Oshimo, Ralph Fordon, John W. Luscombe, Jr., Fremont B. Hitchcock, David B. Stearn, Edward Aaron, Presley W. Edwards, Nicholas P. Antoniadis, Daniel F. Murphy, Francis H. Hardy, Edward J. Flannery, John J. Hardy, Samuel J. T. Straus, Austin A. Howard, Kenneth L. Cooper, Ralph L. Phalen, Albert R. Mathias, John L. Patten, Raymond F. Corbridge, Gabriel W. Reynolds, Thomas N. McGowen, Ralph T. Huff, Paul L. Dy-sart, Jr. The following changes in registration of members were made: Hardy, Terrie & Co., Charleston, W. Va., dissolved, and Waller C. Hardy, mem-

ber, registered on own account; Daniel F. Rice, registered for Daniel F. Rice & Co., Chicago, registered on own account; Addison Stillwell, Chicago, registered on own account now registered as president of Geneva Trading Co.; A. L. Hudson & Co., changed to F. O'Hearn & Co., Francis P. O'Hearn, member, Toronto, Ont.; Frank W. Losee, registered for Melady, Rosar & Co., Produce Exchange of N. Y., now registered as secretary of Melady Grain Company, Inc.

Duluth.—Changed on the Duluth Board of Trade: J. L. Ward succeeds W. G. Webber.

Kansas City.—Membership transfers on the Kansas City Board of Trade: Barney J. O'Dowd, of Simmonds-Shields-Lonsdale Grain Company, on transfer from K. J. Bartsch of the same company.

Memphis.—New members of the Memphis Merchants' Exchange are: R. E. Buchanan, Frisco R. R., Thos. J. Semmes, M. M. Bosworth Co., New Orleans Export Co., New Orleans, La., Grange League Federation Exchange, Ithaca, N. Y., Jarrett-Feely Co., Atlanta, Ga., Traders Feed & Grain Co., Buffalo, N. Y., Hefin & Co., Sherman, Texas, Ralston-Purina Co., St. Louis, Mo., C. G. Carter, Memphis, C. H. Reynell, Memphis Cotton Hull Fibre, Memphis, National Cottonseed Products Corp., Memphis, Tenn., Hiawatha Milling Co., Jackson, Miss., Nowak Milling Co., Hammond, Ind.

Minneapolis.—Changes in Minneapolis Chamber of Commerce memberships are: Ethan A. Chandler took that of Chas. W. Greene; Harry A. Feltus obtained seat of Estate of Marcus Johnson, and Gordon McIntyre Lawrence secured membership No. 2 of E. S. Woodworth.

New York.—New members of the New York Produce Exchange are: Jules M. Salmanowitz of the Superintendence Company, former associate now voted regular membership; Arthur Horowitz of the Central Management Corporation; Milton W. Lipper of Arthur Lipper & Co.; Arthur E. Standers of Zimmerson, Alderson & Carr, brokers and Commission merchants; and grain exporter Jack Hausmann.

CORN-OATS TRADE LIGHT

Our market is running along very quiet just now in both corn and oats. Peoria has had liberal receipts of corn all winter and fortunately we have had a nice demand from the industries which all together have been grinding about 80,000 bushels daily. The shipping demand, however, has been quite light and disappointing. We did have a pretty fair export demand in December for Nos. 3, 4 and 5 Yellow but since that time it has been very light.

There is a large supply of last year's corn in farmers' hands in Illinois and Iowa, notwithstanding that farmers commenced feeding very much earlier than usual on account of light or exhausted stocks of old grain. Our receipts of oats are running light and have been for sometime. We can hardly account for it when one takes into consideration the fact that the Department of Agriculture estimates stocks of oats in farmers hands March 1, as 501,000,000 bushels.

These light receipts of oats may be accounted from the fact that when the crop came in the first of August the stocks of old oats were completely exhausted and a great lot of our farmers had no corn to feed and a light crop of hay so they have been feeding oats heavily since the first of August and there may not be as many back in farmers hands as stated.

It is estimated by some close observers that the crop of corn grown in Illinois and Iowa in 1925 has about 25 per cent better feeding value than the crop grown in 1927.—P. B. & C. C. Miles, Peoria, Ill., letter of March 13.

Grainman James A. Richardson of Winnipeg has been placed on the advisory board of International Nickel.

Appointment of Guy D. Robinson to the vice-presidency of the Montreal Corn Exchange is announced.

G. F. Kintz leaves the traffic managership of the El Reno (Okla.) Mill & Elevator Company for the traffic department of the Oklahoma Mill &

Elevator Company where he will assist in that work for General Mills, Inc., three Oklahoma branches.

E. B. Bliss, former broker, popularly and widely esteemed, of the Chicago Board of Trade, died March 10 of heart attack.

President J. M. Hammond and all other officers of the Lincoln (Neb.) Grain Exchange were re-elected at the annual meeting recently held.

Secretary Fred H. Clutton of the Chicago Board of Trade announces that the new building fund is now in excess of one and a quarter million dollars.

The bill recently before the Kansas legislature to place a tax on certain sales, which would have added \$100 to \$500 a year to elevator taxes, was defeated.

The James Stewart Grain Corporation of Winnipeg has undertaken the operation of the Victory Flour Mills in Vancouver, doing so under the name of Atlas Mills, Ltd.

R. T. Miles, in charge of the General Field Headquarters of the U. S. Grain Supervision Service, just returned to Chicago after a two weeks' trip through the principal Southwest grain markets.

A company to deal in grain, cattle and feed has been organized in Chicago by C. Jacob Mendocha, Frank S. Markey and George Kezios, with a capitalization of \$20,000 and to be called the Arrow Feed Company.

Fifty-one thousand shares were traded March 1 on the New York Produce Exchange, twice the volume of shares of the day before. Other figures: the committee has designated eight new issues for trading.

A hole deep as a market with the bottom fallen out identifies the address of the old-time Chicago Board of Trade building. Now completely demolished, work is under way on the foundations of the new tower.

St. Louis Merchants Exchange members subscribed as a body \$1,500 to the Mississippi Valley Association for the development of the Mississippi River. A like amount had previously been raised from the members individually.

Recently suspended from the Chicago Board of Trade, under provisions of certain rules, are: Fontaine Martin of the company of the same name in New Orleans, La., and John A. Hawkinson, president of the Allied Packers, Inc., Chicago.

The Milwaukee Grain and Stock Exchange will be the name of the Milwaukee Chamber of Commerce if sufficient members agree to the change. But change or not \$1,000 is now asked for memberships with two recent sale prices of \$950.

While Kansas grain dealers were defeating two bills that would have increased their taxes, a bill sponsored by them to provide for the recording of landlord's liens on grain and crops was also defeated by both houses of the state legislature.

A bill for the repeal of the Wisconsin "occupational" tax offset on income taxes is before the legislature. The tax, assessed against grain and coal companies, brings a revenue of \$100,000 a year, most of which, it is claimed, is paid by Milwaukee firms.

H. I. Baldwin of Decatur, Ill., on February 16 sent out a market letter written on paper made from Illinois corn stalks. It was pretty good paper, too, with good bulk and color but a somewhat soft finish. The corn-stalk industry is looking up.

A bill introduced before the Minnesota legislature stipulates a special tax levy upon chain selling organizations as a protective measure for independent dealers in similar lines. Chain organizations are prepared to attack it as an unconstitutional bill, unfairly discriminating.

An advance of \$1,500 over previous prices of seats on the Kansas City Board of Trade brought the cost of the latest sale to \$10,000. E. A. Cayce of the Ralston-Purina Mills paid this price for the seat of the late John Fennelley who died several months

ago. Limitations of membership recently made is a considerable factor in bringing this price, but the future possibilities in trading have also been influential in making the new high.

Asserting that it would be discriminatory, a large group of western Nebraska elevator operators voiced their opposition to the bill before the Senate providing for the licensing of all elevators in Nebraska save certain specific terminal warehouses, at a meeting in Sidney, Neb., recently.

The 29-year-old government dry dock at Kingston, Ont., is to be lengthened 60 feet to accommodate the great grain ships that are expected to dock there when the new Welland Canal is opened. Built in 1860, it was government-operated until 1910 when the Kingston Shipbuilding Company leased it.

The Toledo Produce Exchange saluted the 76th birthday of their longtime member, Henry Hirsch, of Henry Hirsch & Sons, with a presentation of a box of growing flowers. Three things, said he, contributed to his long life: a sensible living, an apple a day, and the Toledo Produce Exchange.

At present grain dealers in Kansas pay 60 cents a car for inspection and weighing, a payment that has brought \$80,000 into the revolving fund of the Kansas State Inspection Department. Grain dealers will continue to pay this because they succeeded in defeating a bill before the state senate to increase the amount of the revolving fund.

The brains of New York Produce Exchange members dance daily to telegraphic price tunes. But on the night of March 15 members danced to the softer tunes of an orchestra. On that date the Exchange's annual frolic and dance was held at the Waldorf-Astoria hotel. Members saw some of their associates perform skilfully in song and dance acts.

Grain Merchant Edwin L. Dial of San Francisco, longtime operator of the Dial Grain Company, has dissolved his business and assumed management of the San Francisco and Oakland business of Albers Bros. Milling Company. Mr. Dial continues as a member of Committee No. 6, the Pacific Coast Arbitration Committee, of the Grain Dealers National Association.

Grain Merchant David D. Tenney, president of the Minneapolis Civic and Commerce Association, has been made a director of the Agricultural Credit Corporation, five-year-old loan association formed to advance funds for the aid of scientific and diversified farming throughout the Northwest. He succeeds the late Ralph Van Vechten of Chicago. Chairman of the board of directors is the Soo Line's president, C. T. Jaffray.

Statistician Henry Heinzer of the New York Produce Exchange was shown to be a new and different statistic himself recently: 50 years of continuous service for the Exchange have been his, which were acknowledged by a testimonial presented by the members. His becomes a place on the chart with R. W. Albertson (56 years) and C. O. Pietsch (54 years). Other "statistics", all 40 years or more: B. J. Van Cott, F. J. Leuper, J. W. Roycraft, J. W. Finely, R. C. Meek, H. S. Embree, J. H. Patrick, G. Carver.

WINTER WHEAT AREA SHRINKS

The total 1929 Winter wheat area in the 13 countries reported Federally up to March 5, is 115,661,000 acres, or a decrease of 4.3 per cent from the 120,883,000 acres in those countries in 1928. The combined area in the United States and Canada is 44,179,000 acres against 48,313,000 acres in 1928 and 44,352,000 acres in 1927.

The area in eight European countries has been reported at 36,687,000 acres against 36,940,000 acres in 1928 and 36,490,000 acres in 1927. A report from Russia, forwarded by American Agricultural Commissioner L. V. Steere at Berlin, indicates that the winter sowings for the 1929 harvest in both Ukraine and North Caucasus, the two most important Winter wheat areas, are below last year. The decrease in North Caucasus is placed at 18 per cent and in Ukraine at 12 per cent.

TRADE NOTES

The elevators and conveyors of the new Shellabarger Terminal Elevator at Salina, Kan., are motor driven with Link-Belt Herringbone Speed Reducers and roller chains on the elevator heads, and Link Belt Silent Chains on the conveyors. The drives provide an ideal delivery of power and give a minimum of trouble.

The American Dry Milk Institute will hold its fourth annual meeting in Chicago on April 25 and 26. Dry milk is becoming such an important part of all feeding programs that feed manufacturers and dealers handling feed ingredients for the farmers are interested. The American Dry Milk Institute at 160 D. N. La Salle Street, Chicago, will be glad to furnish information in regard to this product or further details of the meeting.

A motor truck load of grain offers quite different weighing problems to the elevator operator than a wagon load of grain. The advent of the truck has made the old wagon scales obsolete as far as accuracy under the new conditions is concerned. In their long experience with railroad scales Fairbanks, Morse & Co., of Chicago, have solved the problem of balancing unbalanced loads. They will be glad to tell you about their Type "S" Scales.

The Zeleny Thermometer Company, of Chicago, is well started into what promises to be the record year of its history. Projects calling for the installation of its temperature check system in an aggregate of 1,200 bins, already are on this firm's schedule for 1929. One of the latest contracts is a 93-bin installation for the new Pillsbury storage at Enid, Okla. In practically all the new elevators, bin floor fittings and conduits to accommodate this system

ing up a warehouse with it, the profits that are possible with this clean, easily handled sideline, will be sure to attract many elevator operators to the opportunity it affords.

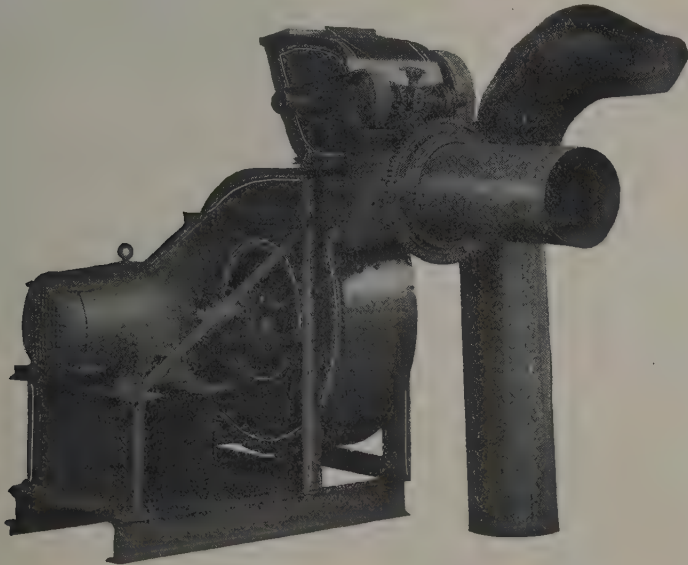
The independent engineering surveys of the effectiveness and economies of its wheat washers, which The Wolf Company of Chambersburg, Pa., is having made, have already disclosed some surprising figures of the profits which these machines have brought to elevators and mills where they have been installed. A copy of these reports may be had for the asking.

Conspicuous in the bulletin describing the Haines Feed Mixer, manufactured by The Grain Machinery Company, of Marion, Ohio, is the guarantee, a facsimile of the one which appears on every order for Haines Feed Mixers. With an iron-clad guarantee of this sort there is no risk to the buyer. This bulletin, No. 15-AM, has many interesting facts and illustrations and the Grain Machinery Company would gladly send it to anyone interested.

The S. Howes Company, Inc., of Silver Creek, N. Y., announces that F. H. Morley, Jr., will represent the company in the Chicago office, located at 537 Webster Building. Mr. Morley is known to dealers throughout the central territory having handled milling and grain machinery for many years. His wide experience in actual milling practice as well as his profound knowledge of machinery and the needs of millers and grain dealers, will make his return back into the trade a matter of sincere congratulation to both his firm and the millers of his territory.

LOADING GRAIN MADE EASY

One of the most disagreeable jobs in the grain business is trimming a car of grain as it is being loaded from a spout. No laborer likes it. The



THE KELSO PNEUMATIC GRAIN CLEANER AND LOADER

are installed, even when complete equipment is not put in immediately.

The majority of flax shipments are badly contaminated with weed seeds. And yet the value of linseed oil is dependent on its absolute purity, so there is the strictest necessity for a cleaning machine which makes no mistakes and which leaves no foreign seeds in the product. Naturally the S. Howes Company, Inc., of Silver Creek, N. Y., are much gratified that eight of its Invincible Flax Cleaners will be installed in the new plant at Minneapolis of Spencer Kellogg & Sons, a firm with a background of many years' experience.

Several hundred farmers from central Illinois recently visited the International Harvester Company's plants in Chicago. Other groups from other localities are the company's guests at frequent intervals. These guests go home, as a rule, pretty well sold on International products. There is little doubt that more farmers than ever will be asking for "Big Ball" International Binder Twine, and as the company makes it easy to handle without load-

Bel-Kel Manufacturing Company of Decatur, Ill., in its Kelso Pneumatic Grain Cleaner and Car Loader, has an article which not only does away with a dirty job, but also dispenses with a large amount of high priced labor.

The loader, as can be seen in the illustration, operates by means of a fan blast and an automatically turning nozzle which distributes the grain evenly through the car, and absolutely prevents the accumulation of dust in a pocket at any point.

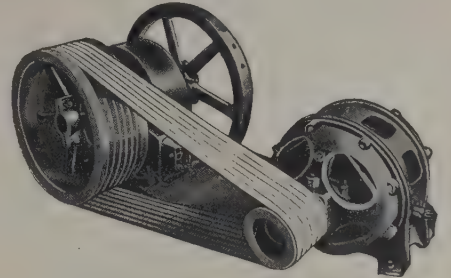
In fact the Kelso Loader cleans the grain and cools it as it distributes it through the car. This is often an important grade factor at destination, for dust pockets heat quickly, and that short cooling process at the start of its journey often saves a car from rejection in the germinating season.

Some very interesting facts concerning this loader, with prices and testimonials have been put into a folder which the Bel-Kel Manufacturing Company will be glad to send to anyone interested. A postcard costs only a cent. It may lead to the saving of many dollars.

WEBSTER COG BELT DRIVES

The Webster Cog Belt Drive for the transmission of power also acts as a speed reducer. This drive consists of a grooved driving pulley in the grooves of which is run a belt of trapezoidal cross section. Each pulley groove is shaped like the letter "V", either coming to a sharp point at the bottom or being cut off just above this point to give a small flat base to the groove. The power transmitted is accomplished by the wedging action of the belt section between and against the sides of the pulley groove. The Belt is designed to ride between the sides of the groove, but never to touch the bottom or base of the groove.

The three prime sections—Compression, Tension and Neutral—are correctly placed in the belts through a patented built-up unitized construction,



WEBSTER COG BELT DRIVE

each belt is individually die-cut from the whole and templated, forming a raw edged, non-glazing contact service of great gripping power. The entire belt is made with one vulcanization, regardless of length, no sectional vulcanization being used.

The Webster Cog Belt Drives embrace the following advantages: smaller pulleys and extremely short center to center distances possible without the use of idlers, exact speed ratio maintained through greater gripping power, no slip, unaffected by dust or moisture laden atmosphere, absorb the shocks of power suddenly applied through the "seating" action of belts in grooves, no vibration transmitted between driving and driven machines.

Due to long life, belt replacement is extremely infrequent. No lubrication or dressing necessary, pre-stitched construction and correct mechanical design eliminate necessity of frequent "take-ups." Its sturdy construction, greater flexibility and cool running efficiency results in long life. No oil or grease to leak or collect dust, also greater gripping power permits less tension, therefore there is no belt sagging. Recommended wherever quietness is essential. The drives are manufactured by the Webster Manufacturing Company, 1856 N. Kostner Avenue, Chicago, who will gladly send descriptive circular on request.

POOL STORAGE A QUARTER OF DOMINION CAPACITY

In spite of the rapid-fire elevator building program of the three Canadian pools, their 1,417 country elevators represent only 26½ per cent of the total number of country grain storage plants in Canada. Their terminal elevators represent less than 20 per cent of the Dominion capacity at terminal points, so the rough percentage of Canadian pool storage capacity, compared to non-pool storage, is 25 per cent or less.

The licensing and bonding department of the Canadian Board of Grain Commissioners reports country elevators in the Dominion now number 5,343. These houses can hold a total of 178,622, 430 bushels of grain, reflecting an average capacity of 33,430 bushels per elevator.

Storage provided by other than country elevators totals 179,632,360 bushels, divided as follows: 82 private terminal elevators, 86,485,000 bushels; 38 public terminal houses, 90,577,210 bushels; 18 mill or manufacturing elevators, 2,570,150 bushels. The total number of all types of elevators in Canada is given as 5,453, with a combined capacity of 305,744,790 bushels.

The three wheat pools claim a country and terminal elevator capacity of 56,166,000 bushels, of which

33,606,000 bushels is terminal. Private interests maintain terminal storage for between two and three times this volume.

EARLY CORN GETS THE WORM

The European corn borer seems to prefer early-planted corn to the late-seeded grain, according to official tests made in Ohio. Early strains are definitely at a disadvantage in that they carry more corn borers, and it is shown that they are more susceptible to damage from the worm pest than the larger, later sorts.

Should dealers recommend the late planting, however, it should be noted that only the early varieties of seed will insure fully mature corn at harvest.

LINK-BELT ELECTS WATSON VICE-PRESIDENT

From the executive offices of Link-Belt Company comes the announcement that James S. Watson has been elected vice-president, with headquarters at the company's Dodge Works in Indianapolis, Ind.

Mr. Watson was born in Philadelphia and has been with the company continuously for 34 years, having entered the employ of its Philadelphia plant when he was barely out of his "teens."

In January, 1903, after eight years' experience in various departments, the management selected him to take charge of the exploitation of Link-Belt Silent Chain as a power transmitting medium. Silent Chain then was new, as it had only been introduced in the year 1900.

For the past nine years Mr. Watson has been located at the company's Dodge Works in Indianapolis, of which he is general manager in full charge of the production of Link-Belt Silent and Roller Chain Drives, and from which point he also continues to be responsible for the selling of these drives, as well as Herringbone Speed Reducers



JAMES S. WATSON

through a band of Power Transmission Engineers located in practically all of the principal cities.

His business ideals, here quoted, give one a good perspective of James S. Watson, the man:

"A definite knowledge of one's product; faith in one's self; belief in one's business associates; respect for one's competitors; and a general adherence to the Golden Rule."

DURUM BREAKS ALL RECORDS

World Durum wheat production in 1928 appears to have increased much more in comparison to 1927 than the world crop of all wheat. Preliminary estimates indicate a total Durum crop for the important producing countries outside of Russia of about 235,000,000 bushels. This is an increase of 25 per cent over the 1927 estimate of 189,000,000 bushels and indicates the largest world crop on record. The totals, as given above, include estimates for the United States, Canada, Italy, Algeria, Morocco and Tunis. France and Spain also produce some Durum wheat, but, as far as can be determined, not in large enough amounts to change the trend of world production significantly. Increases have occurred

in all of these countries except Morocco, where the total wheat crop is smaller than in 1927.

Durum production in the United States, which is now the world's most important producer except Russia, is estimated at 98,000,000 bushels, compared with 80,000,000 last year.

Foreign trade of the United States in Durum wheat has been brisk in spite of the large crop in other countries. Our exports for the first six months of the current crop year, amounted to approximately 30,000,000 bushels, compared with less than 22,000,000 in the corresponding period of 1927.

"GOOD OLD PIT" MAY BE APRIL REPORT FROM CHAMBER

The future trading committee of the national Chamber of Commerce, responding to what is thought to be the wish of President Hoover, probably will make its report in time for submission to the special session of Congress planned for next month. In the face of repeated assertions from the Department of Agriculture that the volume of pit trading has not been lessened by Federal control, the "findings of the committee, it is predicted, will indicate that grain growers have lost millions of dollars as a result of the big speculators' exit from the grain trade arena to the stock-trading floor.

The majority report of the committee, it is believed, will indirectly suggest a removal of certain restrictions now imposed by the Grain Futures Administration. This recommendation will be based on the assumption that large operators are brainy individuals who, while taking profit on their immense individual trades, often serve to stabilize prices on these grains which less daring traders are afraid to touch. The pit trading mechanism, in other words, may be considered good enough without being tinkered with by Government regulators at which the plungers shy.

A report on futures trading in cotton and other commodities besides grain, will be made at the same time.

GEORGE H. HESS DIES AT 66 Inventor of Grain Drier

George H. Hess, president of the Hess Warming and Ventilating Company of Chicago, and inventor of a grain drier successfully used in connection with many large elevators, died in his La Grange, Ill., home February 21.

Born in Michigan in 1863, second son of George H. Hess, Sr., and Mary Ireland Howe Hess, his parents early brought him to Chicago. Here his father organized the George H. Hess Company, manufacturing stoves and furnaces, and operating a foundry business. When George H. Hess, Jr., reached manhood his father took him into the company. His brother, William H., was in a similar business making stoves, and photographic supplies in addition.

Circumstances defeated the efforts of the father; the business did not prosper, and it was sold to his son, William H., at a sheriff's sale.

Immediately a new company was formed, called the Hess Warming and Ventilating Company. George H. Hess, Sr., was president; William H. Hess, treasurer, and George H., Jr., secretary. This was the firm that became the eminently successful company with branches in New York City, Detroit and Milwaukee. Then it dealt in furnaces and photographic supplies, but now makes, in addition to furnaces, grain driers, steel cabinets and mirrors.

In 1897 the Weare Commission Company requested George H. Hess, Jr., to equip them with a furnace for a grain drier then being operated by that company in Chicago.

Mr. Hess examined their grain drier, thought he could do better. He had his idea then for the Hess drier. Promptly he told Mr. Weare that he did not believe his drier would succeed, and asked to be allowed to experiment.

"Yes," assented Mr. Weare, "provided you build it of wood."

Thereupon Mr. Hess took some grain to his home, experimented with it on a piece of paper over a

hot air register. He put the grain on the register at night and awoke the next morning to success. But he had yet to experience the results of his newly conceived drier when built in wood according to the Weare proviso.

The wooden Hess drier operated just one hour. The heat and grain moisture made wooden conch shells out of the shelves. However, George H. Hess, Jr., got satisfaction out of the demonstration: "If it were made of steel it would work perfectly."

The steel Hess drier replaced the original one. It worked so well that the results were heard about. It was not long before many were in operation in Chicago, not much longer when they were operating elsewhere.

Inventor Hess succeeded his father as president of the company, which office he held until his death. He is survived by his wife, Mrs. Lucille J.



THE LATE GEORGE H. HESS

Hess; two daughters, Mrs. George W. Wagstaff and Dorothy H. Hess; two sons, Carleton W. and William D. Hess.

THE QUESTION OF TYPE OF STORAGE

The enormous losses experienced by southwestern farmers during the past two seasons, on account of damp wheat, shows conclusively that no type of storage should be given consideration that does not provide, in some way, for reconditioning this kind of wheat. Slightly damp wheat can be reconditioned through well ventilated bins, but if there is considerable dampness, it will require a system of rehandling in which the grain can be aerated and dried while it is being moved from bin to bin.

There are several bins on the market that are ventilated, besides several home-made ventilation systems that are proving successful.

NEW SACK LIEN BILL URGED

To protect dealers against loss in advancing sacks to growers at harvest time, a sack lien bill has been introduced into the Washington State legislature. The proposal, known as Senate Bill No. 271, is sponsored by the Northwest Grain Dealers Association. By the provisions of this measure, settlement for grain sacks is given precedence over other claims with the exception of harvest labor.

A similar bill was passed by the Washington legislature two years ago, but was vetoed by Governor Hartley.

CANVAS belt conveyors for grain were used in a Philadelphia elevator in 1850.

EXPORTS of wheat from United States ports during 1928, were 92,666,000 bushels, according to the final estimate of the Department of Commerce.

The Grain Elevator System at Montreal*

WITH the completion this spring of a three million bushel extension to No. 3 elevator, the huge grain elevator system at the Port of Montreal now boasts a total capacity of 15,162,000 bushels. The Montreal Harbor Commissioners control, in all, four big elevators; which are known as B elevator, No. 1 elevator, and Nos. 2 and 3. Elevator B has a capacity of 3,500,000 bushels; while No. 1 holds 4,000,000 bushels; No. 2 2,662,000 bushels, and No. 3 now has a total capacity of 5,000,000 bushels.

The grain-handling facilities at the Port of Montreal are a source of pride and admiration to the inhabitants of the city. The grain is transferred from canal grain barges into the elevators by a marine leg attached to the harbor elevators. At elevator B there are two marine legs, one of which is stationary, while the other can be moved about on tracks. There is a similar arrangement at elevator No. 1. At elevator No. 2 there are two legs, both stationary; while at elevator No. 3 there are four legs, all movable. Only one boat can be unloaded at a time at elevator B and No. 1, but at elevator No. 2 the marine legs are arranged one at each side so that two boats can be unloaded

the hold of the vessel to be unloaded. The leg is so counterweighted that, for a short time, it continues to lower itself into the grain in the hold of the vessel by means of its own weight. Thus the natural flow of the grain to the foot of this leg feeds the buckets which are fastened to an endless belt. A typical bucket measures 26 by 8 by 8 inches, and is cup-shaped in order to give a clean discharge when it reaches the top of the head pulley. The buckets are placed upon the belt at 11-inch centers. The head pulley is 72 inches in diameter, and runs at a speed of 24 revolutions to the minute. Special attention has been given in Montreal to the drive of these head pulleys. Rope-drives have been eliminated, and double-reduction chain drives placed directly upon the marine legs give entire satisfaction.

While the unloading of grain from cars cannot be done, in the aggregate, quite as rapidly as from the canal boats average figures being given as 125,000 bushels an hour for this operation—it is a far more spectacular affair for the onlooker. As the grain car is run along the tracks to its position at the elevator, it is picked up and lifted bodily from the tracks, and then tilted at an angle so

violently enough for all the grain to be precipitated through an open door, and the raising of one of the tracks, as described, ensures that the grain will be shaken and precipitated in the right direction. It should be explained that as the car is pulled on to the tracks over the machine, clamps are raised mechanically which grip the couplings of the car and hold it fast. The power, controlled by the operator of the machine, is applied through a shaft having an eccentricity of three inches and running at 100 revolutions per minute. This gives a reciprocating motion to the car.

Delivery of the grain to ocean-going vessels can also be made very rapidly. On a continuous operation ocean vessels can be loaded with grain at a maximum rate of 450,000 bushels an hour. An ocean steamer ready to take in a cargo of grain is ordered to its berth by the harbor master, the elevator superintendent issuing orders at the same time to his staff giving the quantity of grain to be loaded and the bin from which the grain is to be taken. The grain is then permitted to flow from a valve in the bottom of the bin on to a conveyor belt leading to a loftier leg, which elevates the grain to a garner. From the garner the grain is weighed and released to a lower garner, from which it is fed on to belts leading to grain conveyor galleries. These galleries are arranged at a suitable height above the wharf level, and have projecting from them 14-inch spouts working on turnheads and easily controlled so as to divert the grain into the de-



SHIPPING GALLERIES IN THE MONTREAL HARBOR FROM ELEVATOR NO. 3

simultaneously. The same applies to elevator No. 3. In the case of that elevator, however, there are two legs on each side of the jetty, which means that the unloading operation can be carried out in about half the time that it takes at elevator No. 2. At present the Montreal Harbor Commissioners, who control all navigation and harbour facilities in the port, can unload six grain vessels simultaneously.

In order to avoid confusion a system of telephonic communication between the departments of the Harbor Commissioners has been installed. When a grain boat arrives in port with a cargo of grain to unload, it receives orders from the harbor master under which marine leg or legs it is to be placed. The harbor master, in turn, has been in touch with the superintendent of elevators, who decides upon the distribution of the grain into the elevators. From a central office in the main elevator, where a duplicate layout of all bins is illustrated upon a board, the superintendent orders the placing of the grain in any specific bin or bins. These instructions are telephoned from his office to a marine leg operator, the weighmen and distributing men, who immediately set into motion the necessary belts to carry out the operation.

Colored lamps provide intercommunication signals between the various men engaged in the operation. When a marine leg operator has a clear signal, he puts into operation the marine leg in

that the grain is literally poured from the box car into the elevator. Or else the car may be run on a track over a mechanism which shakes it so vigorously that all the grain is jolted and shaken out of a previously opened door into the elevator.

The Harbor Commissioners have in operation eleven of these specially constructed machines for unloading grain cars. One of their machines is at elevator B, two are at No. 1, and there are four each at Nos. 2 and 3. Each of these machines unload seven box cars, of 2,000 bushels capacity each, per hour. They deposit the grain from the cars into boot-tanks, from which the grain is elevated to a garner that holds slightly in excess of one carload. This quantity is weighed in one operation, and then distributed to the desired bin. By the adoption of these huge unloading machines a great advance has been made over the old method of having men working with shovels in the cars and unloading the grain into elevators. Of the eleven unloading machines already mentioned, five are of the type which lifts the car bodily from the tracks, the other six being of the "shaker" type. The type which lifts the car from the tracks, tilts it both sideways and endways.

The "shaker" is constructed below the level of the elevator floor, with the car tracks running over it. The rail farthest from the elevator is raised six inches above the floor. The car then is drawn over the machine, which is set in motion. It is so constructed as to shake and jerk the car

sired hold in the vessel. This conveyor system gives the harbor facilities for serving 30 steamship berths and for loading out 23 vessels simultaneously. The Harbor Commissioners' elevators also have facilities for drying and cleaning grain, and Government grain inspectors are present at the Port of Montreal at all times during the grain season.

In addition to the elevator facilities already described, the Harbor Commissioners have one floating elevator always ready for service. It has a capacity of 7,000 bushels per hour, but is used only for the purpose of lightering vessels. In conjunction with the harbor's elevator system and other facilities, the Commissioners operate their own machine shops. Their own force of maintenance men and millwrights attends to any minor breakdowns in any of the machinery and equipment. Fortunately, however, breakdowns are almost unknown, despite the fact that the system normally is in daily operation from seven o'clock in the morning until eleven o'clock at night, while, during rush periods, the grain elevator facilities are in operation for 24 hours at a stretch.

All motive power throughout the entire harbor plant of the Commission is electrical, including the specially constructed goods engines which operate on the harbor's own lines, hauling freight cars about the harbor. The Commissioners purchase their electric power in bulk by contract from the Montreal Light, Heat and Power Company.

*From "The Engineer."

NEWS LETTERS

LOUISVILLE

A. W. WILLIAMS • CORRESPONDENT

THERE has been a good demand for dairy and stock feeds as well as poultry feeds over the January and February period, and the special chick feeds are now picking up, due to the incubators having been on the job. However, movement of grain—that is, coarse grains, has been relatively light. Jobbers report that following the advance in prices about February 1, demand slumped off. Carlot handlings have been considerably below par over February and early March.

At this time last year there was a relatively good demand, comparisons not showing present conditions as very favorable. However, prices have been a little high, and dealers have been backward about placing orders. Another thing that has tended to hold back business has been the fact that miserable weather has been experienced over the first two months. The country is deep in mud, and farmers are not getting into town, and there is no hauling to stores that are off of hard roads. By the time the roads harden up the farmers will be busy in the field again.

Seedsmen report that business in January was good, and that shipments have been active, but that bad weather and bad roads in February resulted in a considerable slump in wholesale demand. Red top, orchard grass, some bluegrass, Red Clover, jap Clover, soya beans, and cow peas have been in demand. Cow peas and soya beans have been in inquiry earlier than usual, and at stiff prices. Millet is quite high this year. Jobbers report that coloring of European Clover to distinguish it from Domestic killed the sale of it.

Elevator business is reported as quiet, daily handlings being little more than half movement over fairly active periods, there being very little in or out movement, and only fair stocks on hand, for long storage. Corn drying is still active, however, as it has been a mushy winter for the most part and natural drying hasn't shown much progress.

The Winter wheat crop, which was the worst failure in years during the 1927-1928 winter, looks as if it will prove satisfactory in Kentucky and southern Indiana this year. Wheat has had very fair snow protection, and no below zero weather in this territory, with the result that it is looking good, and should come into good weather in excellent shape. Acreage is not nearly normal, due to loss of seed wheat the previous winter and high prices asked for seed stock last fall.

Hay prices have been a trifle strong for Clover and Clover Mixed. There is very little Clover to be had, and Mixed Timothy and Clover is selling for more money than straight Timothy, which is decidedly unusual, but the dairymen want Clover Mixed, if they can't get Clover. Some of the leading jobbers claim that Clover would sell at about \$22 for No. 1, if it was available, and \$20 for No. 2.

Feed demand, while good, is said to be below that of last year in volume. Bran is \$32 a ton, sacked; mixed feed, \$33; and middlings, \$33.50, but will advance probably if mills do not show better running time between now and open pasture time. Mills need flour orders and are running part time. Manufactured feed plants are reporting very fair business, and good running time, especially on poultry and cattle feeds.

Frank Dickson, general manager of the Kentucky Public Elevator Company, Louisville, who had a light stroke of paralysis in February, resulting in a few days at the hospital, is back on the job, as good as ever, having fully recovered use of his hand and foot.

Elevators reported quiet business of late except for corn drying, which has been running fairly well. Very little corn has been moving in from

the farms of late, and a lot of it may remain on the farm until late spring, as there has been no winter plowing, and when roads are hard enough for hauling, farmers will be giving their attention to planting.

Central Kentucky is quite prosperous this year as a result of excellent prices paid for tobacco and fair prices for corn, hogs, cattle and dairy products.

Ed Scherer, of the Bingham Hewett Grain Company, Louisville, reported slow business, and not much in prospect for the time being.

Lee Callahan, of Callahan & Sons, is on a trip to Florida and Cuba, with Mrs. Callahan.

Henry Fruechetenicht, Louisville, has returned from Florida, where he spent a couple of weeks while recovering from a heavy cold.

ST. LOUIS

FAIRMOUNT

CORRESPONDENT

THE Grand Hall of the St. Louis Merchants Exchange is being decorated and cleaned. The hall floor is 121 feet 10 inches long, 92 feet 6 inches wide and 105 feet high from the floor to the highest point of the ceiling. The ceiling is divided into three compartments, each containing a grand medallion. The central figure of the ceiling is emblematic of the great city of the West, St. Louis, surrounded by groups typical of the agricultural, mineral and industrial products of the Mississippi Valley. The group of figures to the north represents the four quarters of the world bringing their various offerings to the West, which, with outstretched arms, offers its products in exchange. The two figures at the bottom complete the representation of the West with the Mississippi River. The two end compartments are composed of geometrical divisions, ornamented in imitation of stucco, each containing four panels, with emblematic representations of the industries of the State of Missouri in basso-relievo. The centers of these two compartments form each a medallion 26 by 26 feet. The one on the north represents characteristic types of European nations—England, Germany, Italy, France, Scotland, and Ireland, forming a central group, surrounded by Russia, Switzerland, Slavonia, European Turkey, and Greece. The South medallion represents characteristic types of Asia and Africa—Arabia, Egypt, Judea, China and Japan, forming the principal group surrounded by Ethiopia, Caucasasia, India, Persia, Abyssinia and Mongolia. The cornice surrounding the ceiling, with the spandrels and lunets over the windows, forms a border 20 feet wide, containing the names of all the states of the Union, and representations of the merchant flags of the world in panel work, enriched with ornaments in imitation of stucco. Work has been progressing rapidly on the painting and cleaning until labor trouble developed on March 5 over the erection of a steel scaffold. The painters claiming that under their rules they were compelled to erect their own scaffold. This matter has been in abeyance for several days but the prospects are that it will be shortly settled. Not only the hall but the building itself is being renovated and all the lateral halls are being cleaned and repainted.

John Schmidt, formerly a salesman of wheat for the Marshall Hall Grain Corporation here and at St. Joseph, Mo., and later at Kansas City, died suddenly on February 1. Mr. Schmidt was remembered by many here as a very affable and pleasant gentleman. Much sympathy has been expressed to his wife.

W. L. Malkemus, president of the Kellogg Huff Commission Company, and C. H. Appel, president of the C. H. Appel Commission Company, both of this city, left St. Louis on February 28, for Fort Worth, Texas, with their destination the oil fields of western Texas. These gentlemen are both in-

terested in oil leases in this territory and on their return, report that everything is very promising.

The wife of W. K. Woods, formerly president of the St. Louis Merchants Exchange and a vice-president of the Ralston Purina Company, died on February 1 and was buried on February 23. Besides her husband she left two young sons.

Franz A. Allhoff, a member of the firm of Allhoff Bros., grain and feed dealers, died on February 25 at 10 o'clock. His wife and 10 children survive him. Mr. Allhoff was well known to the membership of the Exchange for his honesty and fair dealing.

P. L. Wensell, manager of the LaMonte Milling & Grain Company, died on February 7, 1929, at Kansas City from the effects of an operation. Mr. Wensell was well and favorably known to the membership of this Exchange, having shipped grain to this market for many years.

Bert Ball, formerly advertising manager of the St. Louis Merchants' Exchange and later connected with the Chicago Board of Trade, died on February 7, 1929, at the Josephine Hospital. He was one of the pioneers in organized crop improvement effort.

The Ralston Purina Company has opened a new mixed feed mill plant at Denver, Col., under the management of Fred H. Udell. Mr. Udell is from the St. Louis office and a member of the St. Louis Merchants' Exchange and later in charge of the Kansas City plant as manager. Mr. Udell is a St. Louisian and is to be congratulated on his advancement.

R. M. Gunther, formerly buyer of grain on the Merchants' Exchange for the Ralston Purina Company, has moved to Minneapolis, Minn., where he will be purchasing agent of the Minneapolis plant of the Ralston Purina Company.

Henry Hunter, familiarly known as Harry Hunter, celebrated his eightieth birthday on February 15. Mr. Hunter is president of the Hunter Grain Company. Associated with him is his son, Ed Hunter. Mr. Hunter has been long and favorably known to the members of this Exchange. At one time he was connected with the Redmond Cleary Commission Company as traveling salesman. Later he was associated with the J. F. Kracke Milling Company, with a mill at Clinton, Mo., and office in St. Louis. For a time he was associated with John Schwartz, an independent dealer in Chicago, later forming the firm of Hunter Grain Company with his son. Mr. Hunter is in the best of health and is very active, in fact no one to look at him would think that he was 80 years past. He has a sprightly step and enjoys excellent health. Congratulations to Mr. Hunter.

INDIANAPOLIS

H. M. RUDEAUX

CORRESPONDENT

THE receipts of grain at this market have slumped off considerably during the past week. This is probably due to the conditions of the roads at this time, and in all probability the movement will increase before farm work begins. According to some reports there is a large amount of corn on the farms to be moved, and it will move before spring work commences. Oats have shown a slight increase during the past month, which is probably due to the inquiry for seed oats. The demand for oats is fair only, with a good inquiry for heavy seed. The demand for corn is fair, with light receipts grading mostly No. 4 and lower grades selling at moderate discounts.

An occasional car of wheat makes its appearance, but little interest is being displayed on part of the millers. No. 3 Red is selling at \$1.25 country points, and lower grades are selling at very

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wide discounts. The demand from country mills for wheat is very light, with most of the smaller mills fairly well stocked. Receipts on this market have dropped from 125 cars a day to 25 cars a day, and not exceeding 30. Consignment advices are very light with country elevators pretty well cleaned up. However, many of the grain merchants are looking forward to a heavy movement as soon as the roads are in shape to permit heavy travel.

The wheat crop in the southern part of the state, looks very good except where water has stood in the fields. It is a little too early to predict the crop condition, but from all appearances that acreage which is planted is in good shape. March however, wields a tremendous influence on wheat crops, and the month is yet young. Unless there are some heavy freezes and thaws the damage will be extremely light. The general condition from close observation up to now is fair to good.

Elevator "B," operated by the Cleveland Grain Company at Beech Grove, a suburb of Indianapolis, is busy cleaning and bleaching oats. Many of the arrivals are heat damaged.

Tests of seed corn made at Franklin, Ind., where some of the best corn of the state is raised, showed 40 per cent deficient. The test was made on February 23 by the Farm Bureau plant of Johnson County under the direction of A. S. Carter, agricultural agent for Johnson County, and showed that 40 per cent of the corn tested was found unsatisfactory for seed, either because of weak germination, disease, or dead ears. The corn tested came from 19 farms, with the best samples only 62 per cent fit for planting. The best corn tested up to now has been a sample of Golden Glow, a 75-day corn, which showed only 14 per cent deficient. Carter urged that all farmers should have their corn tested before planting time, and that the testing should be done as early as possible. Hard corn showed a better seed possibility than the soft starchy varieties.

Contractors have started work on rebuilding of the structure recently destroyed by fire and also on several new additions to the Nashville Warehouse and Elevator Corporation's elevator at Sherman Drive and the Big Four railroad. The new buildings including a new concrete headhouse and additional concrete structures are to be completed in approximately 90 days.

The demand for all kinds of mill feed is normal, with prices holding steady. Hominy feed is holding its own, with a brisk demand from interior points, and many inquiries for future shipments. The prices are firm to steady with every indication of advancing. Hay continues good with a heavy demand for No. 1 Timothy being quoted at \$14 point of origin. Clover and mixed varieties are lagging, with prices steady at \$16 to \$16.50 point of origin. The prices are somewhat lower than 30 days ago.

MILWAUKEE

C. O. SKINROOD - CORRESPONDENT

THE February grain reports at Milwaukee made rather doleful reading, largely because of the disappointing returns in corn receipts. Because of the snow storms and the very bad roads prevailing the last month and due to a number of other factors, the corn supply here was only 1,266,000 bushels as compared with receipts of 2,560,000 bushels for the corresponding month a year ago. Oats receipts were 478,000 bushels for the past month, as against 281,000 bushels received for the corresponding month a year ago. Wheat receipts for the past month were 142,000 bushels as compared with 102,000 bushels for the corresponding month of last year. Supply for the past month was only 792,000 bushels.

Paul M. Jacobs, son of Al Jacobs of the Cargill Grain Company, and member of the Chamber of Commerce, has been granted a commission in the United States Army air corps. He was commissioned at Brooks Field, Texas, and is to be stationed at Selfridge Field at Detroit. He has been visiting at the home of his parents in Wauwatosa before reporting for active duty.

The Donahue & Stratton Company, long one of the leading grain companies at the Milwaukee market, is still making progressive strides as was indicated when the company reported having leased the Union Terminal elevator at St. Joseph, Mo. This building has a capacity of 1,000,000 bushels. This makes the eighth elevator controlled by Harry Stratton and P. P. Donahue. The com-

bined storage capacity of all the elevators in the string is in excess of 10,000,000 bushels. There are two elevators in Milwaukee, two in Chicago, one at Georgian Bay, two in Portland, Maine, and the recent addition at St. Joseph. The latest acquisition is for a long period, according to Mr. Donahue. With Mr. Stratton in Paris, the business now is being largely directed by Mr. Donahue.

Milwaukee has lost one of its largest maltsters in the death of Christian Kurth at the age of 65 at his home at 780 Marietta avenue. Mr. Kurth was president of the Kurth Malting Company and director of the Sixth Wisconsin National Bank. He died at Columbia hospital after having been in ill health for a number of years. Mr. Kurth was born in Columbus, Wis., and came to Milwaukee nearly 30 years ago. His malting company was one of the largest in this country with branches and elevators in many cities. He was a member of the Milwaukee Athletic Club. He is survived by his wife and two daughters and one son. They are Mrs. Amanda Kurth, the widow, Mrs. Lena Moore, Mrs. Ethel Haebler and Herbert Kurth.

One Milwaukee grain man has been immured in the Mexican revolutionary zone and there is much interest in Milwaukee as to just how he is faring among the banditry and the guns of Mexico. He is Robert G. Bell, vice-president of the W. M. Bell Company, grain commission firm of the Chamber of Commerce. Mr. Bell has been traveling in Mexico with a former Milwaukee resident, Oliver Hoyt, now of New York City. The information of the whereabouts of the two men just came to Milwaukee to W. A. Hottensen, president of the Bell company.

The resignation of Harry M. Stratton as chairman and member of the Business Conduct Committee has been received and accepted. W. A. Hottensen, another leading grain dealer at Milwaukee, has been chosen to fill the post.

Directors of the Milwaukee Chamber of Commerce are waiting for the final form of the rules and regulations of the new stock exchange which it is hoped to have in operation within a short time, if present plans are carried out. The first draft of these rules was made some weeks ago. But they have been mulled over by the investment houses, and by attorneys and a number of knotty points have arisen. W. A. Hottensen, who is chairman of the committee in charge of the new stock exchange plans declares that the rules will be polished up and perfected with all possible speed and will then be adopted by the board of directors and by the rank and file of the membership and then the exchange will be ready to go ahead and do security business. Mr. Hottensen says that if the rules can be completed and other details taken care of promptly, the new exchange should be ready to open some time in the month of March.

The latest quotation on new memberships is around \$1,200 asked, although no sales have been made at this figure as yet so far as known. Sales recently have been in the neighborhood of \$950 to \$1,000. Armin F. Jaeger of the Oswald Jaeger Baking Company and Joseph Friedland, a produce commission merchant, have just been chosen to membership.

The rate of interest on advances at the Chamber of Commerce has again been fixed at 6 per cent despite the tightening condition of the money market and the greater stringency even than in the last few months.

Milwaukee grain men received a distinct shock at the death of Carl H. Baumann, one of the most popular of the present day grain traders. He was 51 years of age. In January Mr. Baumann became ill and spent several weeks at the Milwaukee hospital. He left the hospital in much better condition. However, he had a relapse and death soon came. As a boy of 10, Mr. Baumann came to Milwaukee with his parents from Hull, Iowa. When his father gave up banking to enter the grain business, the boy went with him as his clerk. For many years he had been a floor trader at the Chamber of Commerce. Only last May Mr. Baumann organized the Carl H. Baumann Company. His daughter was associated with him in this enterprise. He was affiliated with the Kilbourn Masonic Lodge and also with the Garfield Chapter of the Royal Arch Masons. Surviving him are his widow, Florence Baumann, his daughter, Margaret, and three brothers and one sister at Stevens Point, Wis.

A number of plans for the new Chamber of Commerce building which it is talked of erecting have been received by J. M. Riebs, the chairman of the Building Committee. The lease on the present grain quarters expires in 1931, so that

building plans will have to be studied within the next few months and some decision made.

The grain in store at Milwaukee is gradually piling up to the point where the total is not far from 5,000,000 bushels. The amount will increase steadily until navigation opens up within a few weeks.

The figures for early March show approximately 468,000 bushels of wheat on hand. The corn total is around 2,285,000 bushels. The oats supply is 921,000 bushels. The barley holdings are 467,000 bushels. The rye storage is 517,000 bushels.

A. L. Jacobs and several other Milwaukee grain dealers attended the meetings at Minneapolis of the Minnesota Farmers' Elevator Association and the Tri-State Farmers Elevator Association meetings.

DULUTH

S. J. SCHULTE - CORRESPONDENT

NO CHANGES in memberships on the Duluth Board of Trade were recorded during the last month. As far as known the present managements of elevator and commission houses will carry on during the coming grain handling season. General confidence is felt here as regards the outlook for the regular grain trade being seriously hampered through the adoption of any plan by the present administration at Washington to afford relief to the farmers of the country. The Executive Committee of the Board of Trade here has intimated that it can be counted upon to co-operate with other grain trade bodies in opposing any measures brought up at Washington that may appear to be inimical to their interests, and they are hopeful that the regular grain handling exchanges will not be so severely hedged about by restrictions as to destroy their usefulness.

Grain stocks in Duluth and Superior elevators have been increasing steadily, but operators are hopeful of being able to handle any receipts from the country that may turn up between now and the opening of lake navigation. Supplies of all grains in the houses as on March 9 aggregated 30,914,000 bushels as compared with 28,900,000 bushels a month ago. Spring wheat accounted for 11,555,000 bushels and Durum wheat for 12,830,000 bushels of the present holdings. Stocks of coarse grains in the houses rank as the smallest at this period in the history of the trade on this market, corn accounting for 1,104,000 bushels; rye for 2,058,000 bushels and barley for 1,936,000 bushels. It is noted that Durum wheat going out by rail to interior mills accounted for nearly all the shipments during the last month and it is conceded that takings of other grains will remain on a limited scale during the next few weeks. Specialists in the Durum wheat market are credited with having sold a fair quantity of that grain recently for export to Italy at the opening of navigation. Interest of buyers in other grains has been fitful and of the lake shipping companies who have been making their initial appearances on the Board trading floor figure that less than 500,000 bushels boat space has so far been chartered for early loading.

The impression prevails in vessel circles here that the official opening of navigation this spring will not come much before May 1. In commenting upon the shipping situation David S. Stocking, a veteran vesselman who has operated on this market for nearly 30 years, figures that steamer space to handle grain, iron ore and other bulky commodities available on the lakes, is 25 per cent in excess of requirements, and that so great has been the efficiency attained through improved loading and unloading, facilities, the use of the radio, etc., in lessening dangers and delays in operating in fog areas, that the present boat tonnage is conceded to be capable of taking care of larger tonnages of lake freight than has as yet been handled during any season.

A. D. Thomson & Co., were credited with putting through some fair sales in Duluth wheat at intervals during the last month and Percy Ginder of the Barnes-Ames Company reported better recent eastern inquiry for that grain than has been the case all winter. It has been noted, however, that Winipeg has been an active competitor with this market in the Durum export trade as a result of the larger areas of that grain being grown over the Canadian West. On that score attention has been drawn to the fact that over 4,000,000 bushels of Durum wheat is now being held at Fort Williams and Port Arthur. As commission men here see it the comparatively low prices of Durum

wheat is attracting the attention of foreign buyers to a marked extent, and it is assumed that the threat of legislation calculated to advance prices will result in stimulating prices in all wheats and is expected to lead to a spurt in export buying well in advance of the promulgation of any new marketing measures. That condition is regarded in trade circles here as accounting for the disposition of operators to hang onto their long contracts during the recent period of weakness in the markets. The spot market in Spring wheat at Duluth has been fairly stable standing as on March 9 at unchanged to two cents off and Durum wheat prices range from one cent up to one off. Generally speaking interests on this market hold to the view that taking a short position on wheat is dangerous at this juncture in view of possible developments that may come about during the spring and early summer months.

Holders of rye on this market are growing more optimistic as a result of recent improvement in eastern inquiry for that grain. Compared with a month ago its spot market is up about two cents and foreigners are said to be showing more interest than in several weeks back. Holders of ergoty rye even are looking forward to less drastic discounts against it being brought out, as European stocks are short and their buyers are said to be showing more of a disposition to take anything obtainable within reason.

Members of the new spot market closing committee on this market made up of "Mike" Schiller, Walter Stanger, Frank Hurley and Grover Wilson are being given full credit for the fairness shown by them in establishing the basis from day to day and setting quotations accordingly. At the start they announced it to be their aim to attract as good a proportion of the grain movement this way over a wide area by setting strongly competitive prices.

While chartering of boat space for grain for early spring shipments have been meager so far, Duluth operators are looking forward to better business being put through in the near future. The first charters for the season were in fact only reported during the week beginning March 4, when boat space was taken for 100,000 bushels of Durum wheat to go to Montreal at 10 cents a bushel freight rate. A boat was also chartered to go to a Georgian Bay port with Durum wheat at a rate of 2½ cents but nothing for Buffalo delivery has been reported. Vessel interests are now asking three for Buffalo delivery and 10½ cents for Montreal. Shippers are demanding a rate of 10 cents for Montreal while vesselmen are stiff on their 10½ cent rate. Considerable grain is scheduled to be moved down to Montreal around the opening of navigation for export.

David S. Stocking spent two months on a visit to Florida points motoring going and coming with a friend from Cleveland. Grain men from here now vacationing at Florida and California winter resorts are expected to begin straggling back shortly. "Jim" Graves, manager of the Capitol Elevator Company was among the latest from here to go into the winter vacationing crowd. He left in time to attend the Mardi Gras festivities at New Orleans and incidentally to play the ponies there.

MINNEAPOLIS

ALBERT W. MORSE CORRESPONDENT

A MARKED increase in grain shipments from terminal elevators to the country trade should occur in March, with the undoubted depletion of grain in storage on the farms. Road conditions forced the farmers to use feeding grains which otherwise would have gone onto the market and the sale of prepared feeds was affected by this reduction in traffic over the country roads.

S. B. Fairbank, president, Judith Milling Company, Lewiston, Mont., visited the Minneapolis trading floor on March 8.

P. E. Stroud, vice-president and treasurer of the John Miller Company returned the morning of March 9 from a short business trip to Chicago.

Fire of undetermined origin caused a \$50,000 damage to the 1,600,000-bushel elevator of the Sheffield Elevator Company, situated on the tracks of the Chicago, Milwaukee, St. Paul & Pacific Railway, early Sunday morning, March 3, and rendered about half of the plant useless for purposes of unloading and loading. The fire was discovered at

about 4:00 a. m. The man to last inspect that part of the structure, after the machinery had operated during a busy day, reported that everything was in a satisfactory shape. Fortunately the main loading and unloading leg was at the east end of the elevator, and escaped serious damage, so that Burt H. Fuller, superintendent, was able to resume operations at 10:00 a. m. on March 8, when he started unloading cars standing on the sidings. By that time there were about 50 cars of grain on the tracks. The fire was confined chiefly to a section of the elevator of wooden construction, which was used for working purposes. Loss in equipment included the cross conveyor belt connecting the grain bins on the west side of the structure to the east side, about 30 feet of belting extending from the west side bins to the cross conveyor belt, chain drives, about 15 electric motors, a short unloading leg used in emergency for loading, the cleaner house, the dryer house and the office. Machinery in the tunnels under the concrete tanks is believed to be in running order. Several plans for re-building were under consideration on March 9. The Sheffield Elevator consists of units which were built at various intervals, the last one being erected about 1909. Two fires occurred on the same spot of the one this month, one in 1913 which burned a wooden working house, and one in 1924 which burned a cleaner house, a leg and three wooden cupolas, which were re-constructed of steel and tile.

Northwest Crop Improvement Association, with headquarters in Minneapolis, has for its immediate objectives the standardization of field crop varieties, and the establishment of locally produced supplies of field crop seeds. In effect, local feed supplies would result from a farmer raising seed to



R. P. WOODWORTH

sell to his neighbor. Under the direction of R. P. Woodworth, secretary and treasurer of the Woodworth Elevator Company, and general chairman of the Northwest Crop Improvement Association, the organization conducted a three-day seed growers' school last January at the North Dakota State Agricultural College at Fargo, which was attended by 140 farmers selected from 26 counties. These farmers were then organized into the North Dakota Crop Improvement Association. Another school is contemplated for next year. A bulletin, known as "Crop Improvement News," is issued from the Minneapolis headquarters, outlining the work of the organization. The Association functions throughout Minnesota, North Dakota, South Dakota and Montana, where efforts toward a more efficient treatment of smut are made as an important phase of the work. Mr. Woodworth has been active in past years in conducting educational programs among farmers for smut treatment. The officers of the Northwest Crop Improvement Association are R. P. Woodworth, general chairman; Paul J. Leeman, vice-president, First National Bank, treasurer; H. R. Sumner, executive secretary. The Executive Committee consists of R. W. Goodell, vice-president, King Midas Mill Company, chairman; Franklin M. Crosby, General Mills, Inc.; H. C. Garvin, Bay State Milling Company, Winona, Minn.; Edw. E. Mitchell, vice-president, Great Western Grain Company; Curtis L. Mosher, assistant Federal reserve agent; and Paul C. Rutherford, Van Dusen-Harrington Company.

Three new members were elected to the Chamber of Commerce of Minneapolis on February 26. Ethan A. Chandler took over the membership of Chas. W. Greene, Harry A. Feltus secured the membership formerly held by the Estate of Mar-

cus Johnson, and Gordon McIntyre Lawrence took membership No. 2 of E. S. Woodworth.

Traveling representative licenses to J. E. Patton and J. V. Patton, to transact business for Patton-Kjose Company, have been issued by the Chamber.

Grain harvested under inclement weather conditions, with the moisture content above 14 per cent, and stored in mass without being dried, may be expected to be unsatisfactory. The presence of weeds aggravates the situation, as they usually have a higher moisture content than in the case of the grain itself.

H. O. Frank, Rugby Elevator Company, with Mrs. Frank and their daughter, left Omaha on the morning of February 24, enroute to California.

Atwood-Larson Company report having done a bigger business through their newly-established Spokane office than they had anticipated. "The main feature of that office is that it has enabled us to serve the interests of our customers in Montana," H. W. Miller, vice-president, said on March 9. C. F. Stablein is the manager in Spokane.

Results of the financial campaign of the Minneapolis Young Men's Christian Association, conducted the first part of this year, were gratifying to B. F. Benson, vice-president, Benson-Quinn Company, who is president of the Y. M. C. A. in this town. The current budget was set at \$160,000, and the returns exceeded that mark by about \$5,000.

W. H. Sudduth, vice president, Commander-Larabee Corporation, was expected back in Minneapolis on March 11 after a three weeks' business trip through the East.

H. F. Shepherdson, president, Quinn-Shepherdson Company, is expected to return the first of April from Florida, where he spent the winter with Mrs. Shepherdson and their daughter.

S. M. Halperin, treasurer, Simmons Grain Company, returned the morning of February 26 from Chicago, where he was on business in the interest of his company.

Six states, Minnesota, North Dakota, South Dakota, Iowa, Wisconsin and Illinois, are served by the Minneapolis office of A. A. Nixon & Co., which was opened on January 7, 1929. A. E. Neass, manager in this territory, who was formerly with Fruen Milling Company, said on March 2, "We figure that by having an office in Minneapolis we can take better care of the Northwest trade." The headquarters are in Omaha.

J. Kenneth Foster, vice-president, Huttner-Foster Company, was confined to his home in Minneapolis by sickness the latter part of February.

D. L. Raymond, manager, Victoria Elevator Company and Mr. Houston, assistant secretary and cashier, Victoria Elevator Company were to leave Florida on March 10, enroute to Minneapolis by way of New Orleans. They are driving, making a trip of several weeks.

Fire is understood to have destroyed the farmers' elevator at Hillsboro, N. D., on Sunday, March 3, a grain annex being saved.

B. V. Loosemore, secretary and treasurer, Quinn-Shepherdson Company, intends to leave the first of April for a European tour, with Mrs. Loosemore. He intends to visit the grain markets of Liverpool and Amsterdam, and to spend some time in France, Germany and Italy, returning about the middle of July.

Clifford R. Heaney, sales manager, Zenith Milling Company was expected to return to the Kansas City mill from the East the middle of March.

A. L. Stanchfield, feed, flour, grain and hay man, said on March 8, "We've had a very good business this last year, bigger than we've had before." Mr. Stanchfield's firm are primarily jobbers, although they do some manufacturing. They handle a varied line of feeds.

Loss by fire of the farmers' elevator at Haydenville, Minn., occurred about February 15. A considerable amount of grain burned.

The wheat buying department of the Pillsbury Flour Mills Company has had a number of changes. Chester Cook went to Duluth to buy in that market; Reynolds Huseby will buy in Omaha; and Douglas Moore of Duluth comes to the Minneapolis office to take a place in the buying department.

Edward C. Christl, assistant secretary, Froedtert Grain & Malting Company, looked for increased business in March, with contact again established

with the country trade after improvement in road conditions. He believed that shipments from terminal elevators to the country would exceed those in from the country points.

Frank R. Huttner, president, Huttner-Foster Company, intended to leave on a general trip through the Northwest when roads were clear.

A. R. Darner, of the Minneapolis Milling Company, encountered considerable snow near Atwater, Minn., on March 6. Mr. Darner covers that part of Minnesota lying west of Minneapolis, staying on the road a week at a time. On March 9 he reported that feed business for the previous two weeks had been lively.

John R. Morris, wheat buyer for the International Milling Company, with Mrs. Morris and their daughter, intended to leave on March 11 for Europe.

R. F. Nicolai, Bartlett-Frazier Company of Minneapolis, was expected to return about March 15 from a trip of two and a half months to Los Angeles. He was accompanied by Mrs. Nicolai and their daughter.

NEW YORK
C. K. TRAFTON - CORRESPONDENT

TRADING in tickets of membership in the New York Produce Exchange was slow during the past month and prices moved irregularly. Early in the period the market was firmer. About a month ago regular tickets were quoted at \$17,500, but a sale was soon made at \$19,000 with more buyers reported at that price. The next sale was at \$20,000, after which the market became easier; sales being reported at \$18,000, \$17,500, and \$17,000. Still later the market again became firmer and the last sale reported was at \$17,300.

James E. Bennett, head of the western firm of James E. Bennett & Co., spent a few hours with friends on the New York Produce Exchange early in March.

Milton W. Lipper of Arthur Lipper & Co., well known stock and bond brokers on the New York Stock Exchange, was elected to membership in the New York Produce Exchange at the last meeting of the Board of Managers.

John J. Stream of Shaffer & Stream, grain merchants on the Chicago Board of Trade, was an early March visitor among members of the grain trade on the New York Produce Exchange.

Members of the New York Produce Exchange continue to speak optimistically regarding developments in their new securities market. Although there was one day on which the sales came close to the former record total, there was no material increase in the volume of business, but this was not regarded as a discouraging feature in view of simultaneous slackening of business in all other stock markets accompanied with generally easier prices. The exchange's listing committee has been steadily adding new securities to the list, and with additional representatives of stock and bond houses admitted to membership at every meeting of the board of managers, a steady broadening of interest in the securities market is naturally expected.

Arthur E. Standers of Zimmerson, Alderson & Carr, brokers and commission merchants, has been elected to membership in the New York Produce Exchange.

According to an announcement posted on the bulletin boards of the New York Produce Exchange, N. J. Campion, for many years associated with the old grain firm of Knight & Co., has severed that connection, to become effective on March 31.

Max Strauss of Wm. E. Lauer & Co., stock and bond brokers, has been elected for membership in the New York Produce Exchange.

Rehearsals for the big annual Frolic and Dance interfered somewhat with the attendance of members of the Produce Exchange bowling league on the alleys. Nevertheless, competition was generally keen and a number of good scores were recorded.

James Seligman, stock trader, is an applicant for admission to membership in the New York Produce Exchange.

The formation of a new firm to deal in investment securities on the New York Produce Exchange was announced on the bulletin boards early

this month. The style of the firm is Guild & Stern, the partners being: Henry Guild, J. Ostrowsky, and Joseph Stern.

Jack Haussmann, grain exporter, has been elected to membership in the New York Produce Exchange.

George H. Lowitz, well known member of the Chicago Board of Trade paid a brief visit to friends on the New York Produce Exchange late in February.

Jules M. Salmanowitz of the Superintendence Company, who recently resigned his associate membership in the New York Produce Exchange, was elected to regular membership at the March meeting of the Board of Managers.

Arthur Horowitz of the Central Management Corporation, investment trust, was recently elected to membership in the New York Produce Exchange.

Members of the New York grain, hay and feed trade were deeply pained to hear of the death on March 3, of James H. Rollins in his sixty-sixth year. Mr. Rollins had been well known in the trade for many years as a member of the firm of J. & R. Rollins, which was founded by his father, the late James Rollins. He had been active in the Masonic Order for over 30 years and funeral services were held at Kismet Temple in Brooklyn of which he was senior post potentate and treasurer. He was also a past deputy grand master of the Grand Lodge of New York State, past high priest of Altair Chapter No. 237 R. A. M., and past commander of St. Elmo Commandery, 57, Knight Templar.

OMAHA
B. O. HOLMQUIST - CORRESPONDENT

THE new Illinois Central Elevator was started in operation last week. Severe winter weather delayed construction at least 30 days and the Crowell Elevator Company, operator, had several storage tracks filled with grain cars waiting for unloading. All equipment is not yet installed but part of the workhouse was rushed to completion to relieve delay in unloading.

Announcement has been made of 500,000 bushels additional storage space to be built for the Omaha Flour Mills Company, which will bring the total capacity of their storage plant to 800,000 bushels. It is stated that a grain merchandising department will be formed by this company.

The Nebraska Consolidated Mills Company will build additional storage bins to the amount of 140,000 bushels capacity which will bring its total capacity to 500,000 bushels. It is rumored that other increases in storage capacity are planned by local terminal elevator companies but no official announcement has been made of these plans as yet.

J. T. Buchanan of the Omaha Elevator Company has been confined to his home by illness for the past three weeks.

W. J. Hynes of the Hynes Elevator Company returned last week from a several weeks' stay in California. J. L. Welsh of the Butler-Welsh Grain Company arrived a few days later from Florida, where he and Mrs. Welsh spent several pleasant weeks. H. A. Butler of the same company is now taking his vacation in California.

E. P. Peck of the Omaha Elevator Company, accompanied by Mrs. Peck, is also in California.

H. K. Schafer of the Maney Milling Company returned last Friday from California.

Ivan C. Harden of the Trans-Mississippi Grain Company returned last week from a two weeks southern trip, calling on the corn and oats trade in that territory. Mr. Harden reports that due to excessive rainfall, seeding of oats throughout the South will be delayed from 30 to 50 days later than normal.

The grain trade in Nebraska is anxiously awaiting growing weather to determine whether or not there has been any material damage due to winter-killing of the Nebraska wheat crop. Farmers generally state that damage has not been severe but that it will be impossible to tell with any degree of certainty until the growing season is reached.

Due to muddy roads, the receipts of corn are much lighter than a week or two ago. In Nebraska, feeders are taking most of the corn that

is offered, especially in the territory which suffered from drouth last fall, namely North Central and North Eastern Nebraska. Farm supplies of corn in this state are not heavy and it is expected that farmers will not market much more corn until summer.

E. G. Taylor of the Vincent Grain Company spent several days last week attending to his line elevator interests in the North Platte territory around Loup City.

Practically no oats are moving to market from Nebraska and receipts of oats from Iowa and South Dakota are very light. Nebraska elevators report that sales of oats to feeders and farmers are far in excess of what they are able to buy from the farms. Seed demand so far has been light due to the unfavorable weather. Shipping demand has improved lately and as stocks here are comparatively small, it will not take long to exhaust them, once the usual spring demand sets in.

KANSAS CITY
MERRYL SCHWIND - CORRESPONDENT

EX-GOVERNOR Arthur M. Hyde, the new Secretary of Agriculture is a native of Missouri, and has been actively connected with the business and political life of the state for a number of years. His appointment is therefore of particular interest to this section of the country. He is president of the Sentinel Life Insurance Company of Kansas City, and is also a practicing lawyer in Kansas City and Trenton, Mo., his home town.

Secretary Hyde was born in Princeton, Mo., a small town in the northern part of the state on July 12, 1877. His father was Judge Ira B. Hyde, for many years a circuit judge in Missouri and at one time representative in Congress from the second Missouri district. Mr. Hyde is by profession a lawyer and began his practice in Princeton in 1900. A number of years later he removed his offices to Trenton. He served as mayor of Princeton for one term, and in 1912 was candidate for attorney general on the Progressive ticket. In 1920 he was elected governor of the state with a plurality of 141,304. This was considered a great personal victory because Missouri was at that time a strong Democratic state.

It was generally believed that Mr. Hyde had retired permanently from public life following his term as governor of the state. Last year he refused to let his name be used in the Republican primaries for senator, although he was practically assured of the nomination. When he was suggested for a vice-presidential candidate at the Republican convention in Kansas City last June he again declined to run.

It is of interest that he was a Lowden supporter in the last campaign. He did not, however, advocate the equalization fee, although he joined Lowden on the farm issue.

Governor Hyde's statement to the Missouri legislature on the subject of agriculture, made on January 4, 1923 is of interest at this time:

Agriculture is the greatest industry in Missouri. It employs more people, affords investment for more money, furnishes homes to more Missourians than any other industry. In its fundamental character and in the character of the people engaged in it, agriculture is the most intensely American industry. The greatest problem in the development of Missouri today is the development of agriculture and the rural population. Two things are primarily necessary for agriculture, greater profits and better schools.

The Kansas City Board of Trade sent the following telegram to Secretary Hyde when his appointment was announced:

We congratulate you on your appointment as secretary of agriculture and feel confident your selection is another step in the direction of sound business administration. The Southwest is encouraged and ensured of a better understanding of its agricultural situation as evidenced in your past interest and close association with the problems of this section. Signed J. J. Kraettli, president.

Grain and milling interests in this section are watching the progress of the proposed Garber bill with particular interest. President Hogueland of the Southwestern Millers' League who represented the League at the hearing in Washington recently has issued a statement concerning the hearing to members of the organization. Mr. Hogueland with C. M. Hardenburgh, president of the Southwestern Milling Company, Inc., Kansas City, and G. G. Sohlberg, president of the Acme Milling Company, Oklahoma City, formed the committee from the Southwestern Millers' League, and presented strong pleas in behalf of the southwest before the committee. Mr. Hogueland in his report spoke of Congressman Garber's excellent arguments in favor of confining the benefit of the preferential duty to flour milled from wheat produced in the United States, and of the able support of Congressmen J. R. Strong and C. R. Hope of Kansas and Congressman O. B.

Burtress of Grand Forks, N. D. Mr. Hogueland said that the members of the committee appeared keenly interested in the Southwest's presentation of the matter and said that the farm leaders feel that there is an excellent chance to secure favorable action when the committee drafts the new tariff bill.

The Grain Standards Advisory Committee, composed of 17 grain, milling and farm organizations, is expected within the near future to make a report on their recommendations for changes in the present grain grading methods. It is indicated that the changes will be quite radical, and if adopted then will have an effect on grading methods throughout the country. It is proposed that after the recommendations have been endorsed by the 17 organizations represented they will be submitted in the form of a resolution to the new Secretary of Agriculture, Arthur M. Hyde.

Jackson Bros. Boesel & Co., formerly located on the fourteenth floor of the Board of Trade Building, are occupying their new quarters on the street floor with entrances on Tenth Street, as well as through the building entrance. The offices have been completely rearranged and redecorated, and the formal opening was held on February 25. A. G. Boesel of New York and A. J. Bell of Chicago attended the opening.

Two new members have been elected to membership on the Kansas City exchange. B. J. O'Dowd of Simonds-Shields-Lonsdale Grain Company has been elected on transfer from K. J. Bartsch who was formerly with the same company. Eldred A. Cayce of the Ralston Purina Company was elected on transfer from John F. Fennelly, who was vice-president of Hall Baker at the time of his death on November 15.

The American Association of Cereal Chemists will hold its annual meeting at the Hotel President in Kansas City, May 6 to 9. H. E. Weaver, chief chemist for the Flour Mills of America, Inc., is chairman of the committee on arrangements.

BUFFALO

ELMER M. HILL CORRESPONDENT

GRAIN rates to be charged by leading Great Lakes steamship lines will be discussed at a conference in Cleveland later in the month. Proposals already made by leading factors in the shipping industry suggest rates from three to four cents a bushel. Some charters for the first trip down the lakes to Buffalo already have been made at rates varying from three to three and one-half cents and some owners are holding out for four cents believing that the early rush for vessels will force up the carrying charges.

Stocks of grain in storage at terminal elevators and afloat in Buffalo on March 11 totaled 27,665,083 bushels, it was announced in the weekly report of the Buffalo Corn Exchange. Of this amount elevators held 19,663,301 bushels and 8,001,682 bushels were afloat aboard boats in the winter storage fleet. Stocks in elevators were divided as follows: American wheat, 4,863,997 bushels; Canadian wheat, 8,135,249 bushels; American corn, 2,480,988 bushels; American oats, 2,257,418 bushels; Canadian oats, 367,001 bushels; American barley, 331,820 bushels; American rye, 142,284 bushels; Canadian barley, 706,989 bushels and Canadian rye, 377,655 bushels. American wheat afloat totaled 3,175,341 bushels while Canadian wheat afloat was 4,147,715 bushels.

The net gain in the carrying capacity of the Great Lakes fleet in 1928 amounted to only 8,800 gross tons, notwithstanding the fact that 22 cargo carriers were placed in service and only 14 were withdrawn from the trade, according to the annual report of the Lake Carriers' Association. The new tonnage was limited to vessels of Welland canal size, with individual capacity of 2,800 tons, whereas the withdrawals from the grain carrying fleet on the Great Lakes included several moderately large ships. The additions to the grain fleet consisted of 21 boats built in England for Canadian registry and intended principally for the movement of grain from Fort William and Port Arthur to Port Colborne and Montreal.

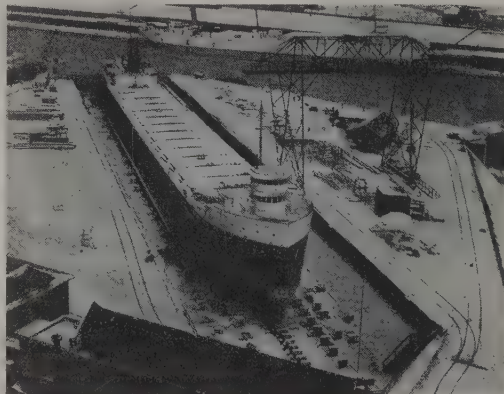
Colonel A. E. Dubuc, chief engineer of the department of railways and canals for the Dominion Government, says he is confident the enlarged Welland Ship Canal connecting Lakes Erie and Ontario will be ready for operations in the spring of 1930. This year's estimates call for the expenditure of \$10,000,000 but it is expected that another \$5,000,000 will be required. Up to December 31, 1928, the

work on the canal has involved an expenditure of \$100,700,000. The new canal, which compares favorably with the Panama waterway, is 25 miles in length with seven locks each having a lift of 46½ feet and one guard lock. The difference in levels between Lakes Erie and Ontario is 325½ feet. The locks are 829 feet long and 80 feet wide in the clear. The depth over the sills of the locks is 30 feet to allow for any subsequent enlargement of the canal. The new canal will accommodate the largest Great Lakes grain carriers.

Berend J. Burns, who for many years was engaged in the grain and feed brokerage business in Buffalo, filed a voluntary petition in bankruptcy last month in which he scheduled unsecured liabilities of \$18,148 with no assets. The estate is being administered in bankruptcy court under Referee James W. Persons.

Announcement is made by the Canada Steamship Lines, Ltd., that another large grain carrier will be added to its fleet early next fall. The boat will be built at Midland, Ont., and will have a capacity for 440,000 bushels of grain. The new ship will be 596 feet long, 60-foot beam, with a molded depth of 32 feet. It will have triple expansion engines and three Scotch boilers with a working pressure of 190 pounds. The boat will be placed in the Canadian grain trade from Fort William and Port Arthur to the lower lakes, principally Port Colborne, Ont.

The annual report of the Lake Carrier's Association for 1928 shows that the grain movement was so unprecedentedly large that new high records were established for total movement over the Great Lakes route. The season's shipments from Lakes



ONE OF BUFFALO'S GRAIN FLEET IN DRYDOCK, FITTING FOR THE OPENING OF NAVIGATION

Superior and Michigan amounted to 575,746,382 bushels as compared with 543,647,583 bushels attained in 1924, the largest previous year. Moreover it was the second consecutive year in which the Great Lakes grain movement went beyond the 500,000,000 bushel mark and the fourth in the history of the Great Lakes grain traffic. Shipments of wheat totaled 415,510,713 bushels, representing an increase of 59,804,662 bushels over the record of 1927. Shipments of barley totaled 68,743,187 bushels, an improvement of 19,889,147 bushels over the 1927 level.

The Lake Superior movement which only once before touched 450,000,000 bushels exceeded 533,000,000 bushels. The lake-trade in American grain from ports of Chicago, South Chicago, Milwaukee and the Duluth-Superior harbors was disappointingly small, each port having shown drastic curtailment in comparison with the preceding year. On the other hand, Canada's richest grain harvest caused shipments from Port Arthur and Fort William to swell to the hitherto unknown total of 385,061,444 bushel mark.

GRAIN NEWS FROM BOSTON

By L. C. BREED

Harry E. Taylor of the W. B. Alger Company, Boston, feed dealers, recently went to Florida on a vacation to be gone until April.

Grant P. Veale of Winthrop, Mass., who was engaged in the wholesale grain business with Leon Graves, died recently as the result of injuries sustained in an automobile accident in North Hampton, N. H., while he was on a sales tour in that section. He was 36 years of age.

B. J. Rothwell of the Bay State Milling Company and Lawrenceburg Roller Mills Company, has been appointed to serve on the special committee of the Chamber of Commerce of the U. S. that will engage in a study of trading in futures on the produce exchanges of the country, particularly in respect to wheat. The purpose of this inquiry is

to determine whether or not prices are affected by trading in futures, and in what direction.

Louis W. De Pass, secretary of Boston Grain & Flour Exchange, whose illness was reported in the February issue, continues unable to leave his residence, but is improving in health. Joseph Carney, assistant secretary, and the officers of the Exchange are giving attention to his duties during his absence.

L. P. Townsend of Springfield, Mass., representing the grain, flour and feed trade attended the hearings at Washington, on proposed tariff changes which are in progress and entered a protest against an increase in the duty on wheat feed. He declared that nearly all of it comes from Canada, and the imports annually only amount to about 92,000 tons.

The liabilities of Roderic N. MacDonald of Brookline, Mass., who recently filed a voluntary petition in bankruptcy are as follows: Wm. H. Young, \$18,350; Elizabeth A. L. Young, \$5,732. Eleanor L. Y. MacDonald, \$7,720, all of Brookline. Lalyards Grain Company, Minneapolis, Minn., \$900. Armour Grain Company, \$900. Grain Marketing Company, \$2,446. David A. Noyes, \$1,032, all of Chicago. Lucke-Gibbs Grain Company, Omaha, Neb., \$585. J. R. Ham Company, Auburn, Maine, \$525.

The Rooms Committee of the Exchange for the year 1929 are E. E. MacLeod, chairman, F. J. Volkmann and T. J. McAuliffe.

Business with New England retail grain dealers during the month of February reached the usual volume for a winter month in regard to sales of grain. Trade in feedstuffs was not quite up to the average for February, owing in part to the mildness of the weather that most of the time prevailed and also to the weakness of the market.

Boston dealers in field and vegetable seeds are meeting with an active demand from country store trade. For the most part the sales are for spring delivery. They state that with the exception of yellow sweet corn, there is no difficulty in obtaining ample supplies of field seed. In vegetable seed there is a marked shortage in beans.

At Boston there is only a moderate demand for hay, but as the receipts are not large, prices have ruled fairly steady. For the month of February the receipts at Boston were 177 cars. Rye straw, 6 cars.

The stocks of grain in the regular elevators at Boston as of February 23, were as follows: Wheat, 1,412,707 bushels; corn, 1,428 bushels; oats, 7,470 bushels; rye, 3,050 bushels; barley, 70,016 bushels.

The receipts of grain at Boston during the month of February, as tabulated by the Boston Grain & Flour Exchange were as follows: Wheat, 273,900 bushels; corn, 1,700 bushels; oats, 25,100 bushels; rye, 1,100 bushels; barley 144,900 bushels; malt, 1,625 bushels; corn meal, 526 barrels; oat meal, 21,242 cases and 595 sacks.

The exports of grain from Boston during February up to the twenty-sixth were: Wheat, Antwerp, 79,944 bushels; Havre, 260,000 bushels; Hamburg and Bremen, 40,124 bushels. Barley, Antwerp, 243,000 bushels; Rotterdam, 297,220 bushels.

The visitors to the Exchange during the month of February, outside of New England, were as follows: H. F. Schell, Lancaster, Pa.; John T. Kimp, New York City; E. Thierwechter, Oak Harbor, Ohio; A. H. Bemmel, Minneapolis, Minn.; J. E. Getchell, Minneapolis, Minn.; J. W. Frazier, Geneseo, N. Y.; William Wise, Red Wing, Minn.; L. A. Bristol, Claverock, N. Y.; Yale Poger, Detroit, Mich.; E. A. Nettleton, Toledo, Ohio; K. L. Burns, Watertown, Wis.; Elmer Reed, Salina, Kansas.

IN THE COURTS

A district court in Sioux City, Iowa, awarded the Trans-Mississippi Grain Company \$200 in a suit which it brought against W. F. Walling for non-delivery of corn.

The \$50,000 damage suit brought by Hazel Moore against the Belt Mill & Elevator Company, Oklahoma City, Okla., for the death of her husband, Ira Chandler Moore, who fell from the top of the company's storage tank, was settled for \$6,500.

A voluntary petition in bankruptcy has been filed by Levi S. Chapman, Buffalo, N. Y. Mr. Chapman formerly controlled the Superior and other elevators at Buffalo. His liabilities are listed at \$24,000 and his assets at \$2,000. His son, Charles R. Chapman, who was associated with him, filed a similar petition.

RECEIPTS AND SHIPMENTS FOR FEBRUARY

BALTIMORE—Reported by Jas. B. Hessong, Secretary of the Chamber of Commerce:

Receipts		Shipments	
1929	1928	1929	1928
Wheat, bus..	1,487,626	1,044,336	2,313,210
Corn, bus..	100,618	92,633	292,857
Oats, bus..	63,143	66,214	19,932
Barley, bus..	312,207	1,065,649	769,450
Rye, bus..	1,091	3,716	815,966
Malt, bus..	20,222	21,798	60,161
Mill F'd, tons	6111	602	.....
Straw, tons..	13	.....	.....
Hay, tons..	49	457	.....
Flour, bbls..	71,105	86,988	4,286
			11,832

CHICAGO—Reported by F. H. Clutton, Secretary of the Board of Trade:

Receipts		Shipments	
1929	1928	1929	1928
Wheat, bus..	1,971,000	938,000	1,054,000
Corn, bus..	10,868,000	15,116,000	3,323,000
Oats, bus..	2,320,000	4,802,000	1,461,000
Barley, bus..	915,000	816,000	320,000
Rye, bus..	159,000	139,000	34,000
Timothy Seed, lbs.	650,000	1,669,000	671,000
Clover Seed, lbs.	1,431,000	1,522,000	677,000
Other Grass Seed, lbs.	1,099,000	2,703,000	1,226,000
Flax Seed, bus.	64,000	161,000	.....
Hay, tons..	7,608	10,223	1,063
Flour, bbls..	1,037,000	1,033,000	518,000
			464,000

CINCINNATI—Reported by J. A. Hallam, Chief Inspector of the Board of Trade, Inc.:

Receipts		Shipments	
1929	1928	1929	1928
*Wheat, bus..	204,400	135,808	124,600
Corn, bus..	854,000	610,400	468,600
Oats, bus..	260,000	278,000	168,000
Barley, bus..	6,400	4,200	11,200
Rye, bus..	.....	1,400	.....
†Ear Corn, bus.	2,000	1,000	.....
†Gr. Sorghum, bus.	1,400	2,800	.....
†Hay, tons..	10,230	9,141	.....
†Feed, tons..	510	240	.....
*Estimated on basis of, to carload: Feed 30 tons; Hay, 11 tons; ear corn, 1,000 bushels; oats, 2,000 bushels; barley, 1,600 bushels; all others, 1,400 bushels.			
†No record of shipments.			

DETROIT—Reported by the Board of Trade:

Receipts		Shipments	
1929	1928	1929	1928
Wheat, bus..	100,000	.....	.....
Corn, bus..	40,000	.....	.....
Oats, bus..	90,000	8,000	.....
Barley, bus..	7,000	.....	.....
Rye bus..	17,000	.....	.....

DULUTH—Reported by Chas. F. MacDonald, Secretary of the Board of Trade:

Receipts		Shipments	
1929	1928	1929	1928
Wheat, bus..	1,941,997	3,709,232	970,779
Corn, bus..	125,661	15,310	8,539
Oats, bus..	334,136	28,802	6,564
Barley, bus..	929,595	57,453	1,790
Rye, bus..	202,726	663,887	26,452
Flax Seed, bus.	9,146	102,457	45,057
			222,065

PORT WILLIAM, ONT.—Reported by E. A. Ursell, Statistician of the Board of Grain Commissioners for Canada:

Receipts		Shipments	
1929	1928	1929	1928
Wheat, bus..	2,918,433	9,545,347	420,832
Corn, bus..	4,652	7,729	7,729
Oats, bus..	648,882	852,727	748,766
Barley, bus..	492,610	652,484	71,160
Rye, bus..	141,897	355,304	8,700
Flax Seed, bus.	18,178	88,002	29,435
Mixed Grain*, bus.	36,455	46,422	3,545
			10,265
*50 lbs. per bushel.			

GALVESTON—Reported by H. A. Wickstrom, Chief Inspector of the Cotton Exchange and Board of Trade:

Receipts		Shipments	
1929	1928	1929	1928
Wheat, bus..	96,000	44,000
Corn, bus..	1,728,142	1,215,035
Barley, bus..	274,023	.....
Milo, bus..	12,857
Kaffir Corn, bus.	272,142	105,714

HOUSTON—Reported by W. J. Peterson, Chief Grain Inspector and Weighmaster of the Merchants Exchange:

Receipts		Shipments	
1929	1928	1929	1928
Corn, bus..	91,125
Barley, bus..	75,000	.....
Kaffir Corn, bus.	110,268	19,687

INDIANAPOLIS—Reported by Wm. H. Howard, Secretary of the Board of Trade:

Receipts		Shipments	
1929	1928	1929	1928
Wheat, bus..	183,000	267,000	163,000
Corn, bus..	2,836,500	2,774,000	1,710,500
Oats, bus..	1,256,000	846,000	972,000

KANSAS CITY—Reported by W. R. Scott, Secretary of the Board of Trade:

Receipts		Shipments	
1929	1928	1929	1928
Wheat, bus..	6,643,780	3,148,860	4,404,400
Corn, bus..	4,767,000	7,381,500	3,093,000
Oats, bus..	338,000	334,000	206,000
Barley, bus..	78,400	30,400	100,800
Rye, bus..	10,500	21,000	4,500
Cane Seed, lbs.	81,650	46,000	19,550
Bran & Shorts, tons	5,520	5,180	17,720
Flax Seed, bus.	.....	.....	59,400
Kaffir & Milo, bus.	524,700	519,200	371,000
Hay, tons..	31,740	23,832	14,154
Flour, bbls..	76,700	51,850	647,400
			592,175

LOS ANGELES—Reported by the Secretary of the Grain Exchange:

Receipts		Shipments	
1929	1928	1929	1928
Wheat, cars..	198	179	.....
Corn, cars..	224	388	.....
Oats, cars..	9	29	.....
Barley, cars..	75	65	.....
Rye, cars..	13	12	.....
Beans, cars..	3	25	.....
Rice, cars..	34	33	.....
Milo, cars..	47	54	.....
Kaffir Corn, cars	50	59	.....
Alfalfa, cars..	9	.....	.....
Flour, cars..	316	120	.....
Hay, cars..	410	350	.....

MILWAUKEE—Reported by H. A. Plumb, Secretary of the Milwaukee Chamber of Commerce:

Receipts		Shipments	
1929	1928	1929	1928
Wheat, bus..	142,560	102,240	30,000
Corn, bus..	1,266,840	2,560,440	830,185
Oats, bus..	478,800	281,400	330,300
Barley, bus..	792,000	929,400	398,160
Rye, bus..	56,700	56,700	43,800
Timothy Seed, lbs.	120,000	165,440	43,714
Clover Seed, lbs.	209,187	83,997	694,256
Malt, bus..	30,400	28,500	178,600
Flax Seed, bus.	5,720	11,440	9,910
Feed, tons..	2,340	4,550	8,090
Hay, tons..	336	276	420
Flour, bbls..	159,250	143,150	8,750
Hogs, nos..	117,351	94,828	3,756
Cattle, nos..	11,225	13,811	10,392
Sheep, nos..	2,098	2,071	127
Calves, nos..	37,807	36,612	5

MINNEAPOLIS—Reported by G. W. Maschke, Statistician of the Chamber of Commerce:

Receipts		Shipments	
1929	1928	1929	1928
Wheat, bus..	6,950,440	8,558,170	2,864,390
Corn, bus..	749,560	1,712,700	394,810
Oats, bus..	1,301,330	1,554,840	1,081,060
Barley, bus..	1,570,990	1,939,410	907,590
Rye, bus..	550,850	337,050	234,420
Flax Seed, bus.	328,420	494,890	341,260
Hay, tons..	1,289	1,513	270
Flour, bbls..	20,674	24,381	912,306
			1,123,586

NEW ORLEANS—Reported by S. P. Fears, Chief Grain Inspector and Weighmaster of the Board of Trade, Ltd.:

Receipts		Shipments	
1929	1928	1929	1928
Wheat, bus..	12	59	163,159
Corn, bus..	468	480	1,920,362
Oats, bus..	36	38	69,993
Barley, bus..	67	.....	345,000
Rye, bus..	2	4	200,468
Gr. Sorghums, bus.	8	6	.....
Barge Receipts:			
Wheat, bus..	12,398	.....	.....
Corn, bus..	702,486	.....	.....
Barley, bus..	67,867	.....	.....

NEW YORK CITY—Reported by H. Heinzer, Statistician of the Produce Exchange:

Receipts		Shipments	
1929	1928	1929	1928
Wheat, bus..	3,259,200	.....	4,699,000
Corn, bus..	30,000	.....	86,000
Oats, bus..	464,000	.....	60,000
Barley, bus..	443,700	.....	918,000
Rye, bus..	142,500	.....	114,000
Clover Seed, bags	600	.....	2,923
Flax Seed, bus.	130,000	.....	.....
Hay, tons..	2,324	.....	.....
Flour, bbls..	1,457,050	.....	499,000

OMAHA—Reported by F. P. Manchester, Secretary of the Omaha Grain Exchange:

Receipts		Shipments	
1929	1928	1929	1928
Wheat, bus..	2,806,400	1,193,600	2,199,400
Corn, bus..	1,639,400	4,211,200	1,239,000
Oats, bus..	404,000	764,000	490,000
Barley, bus..	43,600	78,400	41,600
Rye, bus..	50,400	81,200	64,400

PEORIA—Reported by John R. Lofgren, Secretary of the Board of Trade:

Receipts		Shipments	
1929	1928	1929	1928
Wheat, bus..	142,300	98,400	124,800
Corn, bus..	2,989,550	2,697,200	1,238,400
Oats, bus..	556,200	776,200	455,400
Barley, bus..	379,800	412,800	77,000
Rye, bus..	.....	1,200	291,000
Mill Feed, tons	29,000	42,020	46,660
Hay, tons..	1,400	560	150
Flour, bbls..	263,600	293,900	274,160
			311,700

PHILADELPHIA—Reported by A. B. Clemmer, Secretary of the Commercial Exchange:

Receipts		Shipments	
1929	1928	1929	1928
Wheat, bus..	1,291,067	840,499	786,952
Corn, bus..	310,379	439,919	439,405
Oats, bus..	91,424	45,030	28,977
Barley, bus..	328,740	1,244	389,644
Rye, bus..	.....	9,643	17,143
Flour, bbls..	149,536	161,437	7,895

ST. LOUIS—Reported by C. B. Rader, Secretary of the Merchants' Exchange:

Receipts		Shipments	
1929	1928	1929	1928
Wheat, bus..	3,790,000	1,992,200	2,488,200
Corn, bus..	4,645,000	4,663,400	3,040,800
Oats, bus..	2,248,400	1,798,000	1,867,000
Barley, bus..	158,400	169,300	102,000
Rye, bus..	.....	8,100	1,300
Kaffir Corn, bus.	123,600	260,400	67,600
Hay, tons..	7,920	6,360	3,336
Flour, bbls..	572,630	495,020	487,835

SAN FRANCISCO—Reported by James J. Sullivan, Chief Inspector of the Chamber of Commerce:

Receipts		Shipments	
1929	1928	1929	1928
Wheat, tons..	5,133	6,930	.....
Corn, tons..	2,057	4,920	.....
Oats, tons..	545	502	.....
Barley, tons..	41,016	9,353	.....
Bran, tons..	239	281	.....
Beans, sacks..	58,717	82,594	.....
Foreign Beans, sacks	15,283	62,295	.....
Hay, tons..	2,381	2,460	.....

SUPERIOR—Reported by J. W. Conner, Secretary of the Wisconsin Grain & Warehouse Commission:

	Receipts		Shipments	
	1929	1928	1929	1928
Wheat, bus. . .	1,543,536	2,114,431	754,366	771,074
Corn, bus. . .	22,949	19,789		80
Oats, bus. . .	27,048	28,522	35,461	31,094
Barley, bus. . .	390,714	37,472	1,790	21,628
Rye, bus. . . .	97,810	414,291	25,750	17,476
Flax Seed, bus. . . .	56,704	169,409		2,813
*Wheat, bus. . .	8,031	24,038	8,978	5,023
*Oats, bus. . . .				
*Barley, bus. . .	7,305	11,504		
*Rye, bus. . . .				
*Flax Seed, bus. . . .				

to dispose of the lower grades, some of the poorer of which sold as low as 81 cents per bushel during the week ending March 8. No. 2 Hard Winter, 13 per cent protein, was quoted at the May price of \$1.18½ to four and one-half cents over. This is about two cents lower than this quality of wheat was selling a month ago. Texas mills were bidding \$1.29-1.30 for 13 per cent protein No. 1 Hard Winter, and \$1.31-1.36 was being bid for No. 1 Soft Red Mixed wheat, delivered at Gulf ports for export, No. 2 Hard Winter was quoted f.o.b. New York at \$1.37½.

Premiums for Soft Winter wheat were reduced materially during the past month but scarcity of offerings since the first of March has strengthened the market slightly for this class of wheat and mills are offering somewhat higher premiums for milling quality than they were willing to pay a week or ten days ago. No. 2 Soft Red Winter was quoted March 8 at St. Louis at \$1.34-1.37, compared with \$1.41-1.44 February 8.

Spring wheat markets have also reflected the dullness in the general market situation but premiums for milling quality wheat have held practically unchanged. Some slight improvement in mill demand has recently taken place, but the slightly damaged wheat is in slow demand.

HEAVY WHEAT STOCKS

Market stocks on that date were about 50,000,000 bushels larger than last season. Country mill and elevator stocks, according to private estimates, are over 10,000,000 bushels larger than a year ago and commercial mill stocks at the first of January were about 18,500,000 bushels larger than at the corresponding time last season. Assuming a reduction in these commercial mill stocks during the past two months equal to that of recent years, the supply of wheat in the United States is nearly 90,000,000 bushels larger than last season.

Canadian stocks of wheat at the first of March, including those in store in the United States, totaled about 36,000,000 bushels more than last season. This would indicate a materially increased carryover July 1, 1929, compared with last season unless North American shipments during the remainder of the season are abnormal.

This active competition between wheats from the exporting countries in the European markets is being reflected in a lowering of the quotations on these wheats. On March 8, No. 3 Canadian Manitoba sold in London at \$1.42½ while 64 pound Rosafe, which had arrived, was being quoted at Liverpool at \$1.30½, compared with \$1.39½ for United States No. 2 Hard Winter, and \$1.43 for Australian wheat, both for March shipment. Prices of native wheats in the principal European markets also declined one cent to two cents per bushel from those of the previous week, but were quoted mostly higher than at the middle of February. Considerable quantities of Australian wheat have been going to India and the Orient. A report from the Agricultural Commissioner at Shanghai, however, states that because of the large orders placed for Australian wheat earlier, practically no orders for foreign wheat are being placed and that mills consider that the heavy arrivals during February, together with shipments afloat, will be sufficient to supply mills until the new crop of Chinese wheat is harvested in May and June. Native wheat for June delivery was being quoted at Shanghai, March 8, at \$1.21 per bushel compared with \$1.27 for No. 4 Canadian, \$1.32 for No. 2 Western Red and \$1.31 for Australian wheat for March delivery.

PROTEIN BIDS DOWN

Thirteen per cent protein No. 1 Dark Northern Spring Wheat was quoted at Minneapolis, May 8, at five cents to 10 cents over the May price of \$1.21½, which is about two cents lower than this class of wheat was selling a month ago.

The Durum Wheat market has become relatively firmer than other classes of Spring wheat, as a result of some improvement in export demand and continued active buying of high protein quality by domestic mills. On March 8, May wheat at Duluth was quoted at the same price as a month ago, \$1.08½ per bushel. No. 1 Amber Durum of good milling quality was selling at Minneapolis on that

date at \$1.08-1.18, with some of the best color high protein offerings selling as high as 20 cents over the May price. Quotations on Durum in French and Italian markets were advanced one cent to two cents per bushel and American Durum was quoted March 8, c.i.f. Marseilles, at \$1.39 and Genoa at \$1.38 per bushel.

Canadian cash wheat markets have held relatively firmer than domestic spring wheat markets, No. 1 Manitoba northern being quoted March 8 at Winnipeg at \$1.26½, or two cents per bushel higher than a month ago. Canadian marketings are still large and country marketings during the past few weeks averaged 4,000,000 bushels.

EXPORT WHITE AT \$1.18

Pacific Coast markets have continued quiet with exporters apparently unable to meet competition from Canadian wheat being offered for shipment from Vancouver. Some small parcel lots have been reported sold for export where parcel space for ocean shipment was available at relatively low prices. Export White wheat was quoted March 8, at Portland, at \$1.18 and Red wheat at \$1.16 per bushel. No. 1 Hard White wheat was quoted at San Francisco at \$1.29 per bushel and No. 1 Soft Western White at \$1.26. No. 2 Hard Winter and No. 2 Northern Spring were selling on that date in Denver at 96-99c, and No. 2 Soft White wheat at \$1.06 per bushel.

The rye market in general has followed the decline in the wheat market, although an increased inquiry for rye for export, particularly at Duluth, during the first week in March gave the market some independent strength. Farm stocks of rye March 1 were about 29 per cent smaller than a year ago, reflecting the comparatively light crop grown last year, and totaled only about 5,564,000 bushels. This is about 2,300,000 less than farm holdings a year ago. This decrease, however, is nearly offset by an increase of about 2,100,000 bushels in market stocks. Receipts of rye at the principal markets are relatively small. Domestic mills have been fairly active buyers and arrivals have been fairly well taken. Cash prices at the principal markets are practically the same as a month ago, No. 2 Rye being quoted at Minneapolis at \$1.03-1.10½ and No. 2 Rye at Chicago at \$1.11 per bushel. Rosen Rye was selling at Minneapolis, March 8, at \$1.11-1.11½.

CORN STOCKS SLIGHTLY LARGER

The supply of corn this season apparently has been disposed of nearly as rapidly as last season, and stocks for the remainder of the crop year are but slightly larger than a year ago, when they were considered relatively small. Stocks on farms March 1, according to the official estimate, totaled about 1,030,000,000 bushels, or about 17,500,000 bushels more than last year. This increase, however, is partly offset by a decrease of about 8,000,000 bushels in the stocks in the terminal markets. No estimate is available as to the amount in country elevators but it seems probable that they are not materially changed from a year ago, considering the stocks in store in other positions. These statistics would indicate that about 33,000,000 bushels less corn had been consumed in the United States to date this season than for the corresponding period last year. Exports have been about 20,000,000 bushels larger to date than a year ago, but this increase does not fully offset the smaller domestic consumption and domestic supplies are about 10,000,000 bushels larger than on March 1 a year ago.

The farm stocks are somewhat differently distributed from last season. In the North Central States the stocks on March 1 were 17 per cent larger than last year, but in all other sections of the country they were smaller. Stocks on farms in the South Atlantic States at the first of March were about 35,000,000 bushels smaller than a year ago and in the South Central States nearly 57,000,000 bushels smaller. The quality of the crop was the highest since 1923 and it is estimated that 83.1 per cent was of marketable quality compared with 73.1 per cent for the 1927 crop and a five year average of 78.9 per cent.

Receipts of corn at most markets have become

materially smaller and during the week ending March 8 were only about half as large as a month ago. Current demand has been sufficient to absorb the offerings and market stocks have increased only slightly in recent weeks. At the first of March slightly less than 37,000,000 bushels were reported in store compared with about 29,000,000 a month ago and 45,000,000 bushels a year ago. The unusually bad condition of the country roads in many areas of the Central West is partly responsible for the smaller offerings, but in some sections farmers are reported to have already disposed of a large part of the marketable surplus. Feeders and industries were the principal buyers, as elevator demand continued to be restricted, particularly in the Southwestern markets, by the scarcity of storage space. Export sales recently have been very small, as current domestic prices are mostly above an export basis. Lower prices on other feed grains and cheap wheat have also tended to reduce the European demand for American corn. Shipments from Argentina continue to average better than a million bushels a week, notwithstanding the small stocks reported remaining in that country.

Prices of corn at most markets have held generally steady during the past month. No. 3 Yellow Corn was quoted at the close of the market March 8, at Chicago, at 96-96½ cents, or two cents per bushel higher than a month ago and within about one cent per bushel of the price at which this grade was selling in that market a year ago. Prices at Kansas City are practically the same as a year ago with No. 3 Yellow quoted at 88-90½c. Export bids for corn, f.o.b. Gulf ports, are around two cents to two and one-half cents over the Chicago May price, which closed March 8 at 99½c.

OATS AND BARLEY INDEPENDENTLY WEAK

The market for both oats and barley continues independently weak influenced by the slow demand and the comparatively large supply of these grains still available for market. Farm stocks of oats on March 1, according to the official estimate, totaled about 501,000,000 bushels, or about 128,000,000 bushels more than a year ago. Market stocks were only slightly smaller than a year ago. The lower prices have apparently discouraged marketings, since receipts at the markets since the first of August have been practically no larger than last year when the supply was much smaller. Arrivals have been fairly well taken at the lower prices. No. 3 White Oats were selling March 8 at Chicago at 47½-49½ cents, or three to four cents lower than a month ago. No. 3 White Oats were selling at Kansas City at 49-50 cents per bushel, practically the same as a month ago.

Farm stocks of barley, March 1, totaled approximately 97,000,000 bushels and market stocks over 11,000,000 bushels, making a total supply of these about 62,000,000 bushels larger than a year ago. This large supply, together with a continued slow demand for all but the best malting types of barley, has been a weakening factor in the market and prices have declined two cents to three cents during the past month. Best malting types were quoted March 8 at Minneapolis at 70 cents, Chicago 69-73 cents; Milwaukee 80-81 cents a bushel. Feed barley was quoted at Minneapolis on that date at 59-63 cents; Chicago at 60-66 cents. No. 2 Barley for export was quoted, f.o.b. New York, at 83 cents. Exports have been of small volume during the past month and while North American shipments have constituted about half of the world's shipments they have been composed mostly of Canadian barley, which is apparently being more readily taken in European markets. No. 3 Canadian was selling at London, March 8, at about 99½ per bushel compared with 84½ cents for United States special No. 2.

OF THE 217, 124,458 bushels of grain shipped from Montreal in 1928, 30 per cent was of United States origin.

SPOKESMEN for wheat growers propose a special duty for wheat which tests over 11 per cent protein. Six cents would be the penalty for each per cent above 11.

HAY, STRAW AND FEED

JUST the other afternoon we had occasion to make an interesting business expedition. We traveled from the heart of Cincinnati, Ohio, gateway for the stupendous grain, hay, and feed trade between the North and South, out on the old River Road to Sedamsville. The route led to what, but a few years before, had been one of the busiest industrial centers of the state. Our objective was the site of the great Fleischmann distillery, long noted for a certain brand of rye, "Congress Hall"—if you happen to be interested in ancient history. Neighboring structures, it will be remembered, included a huge malting plant, grain elevators, and hay warehouses, all connected in some way with the distillery owners.

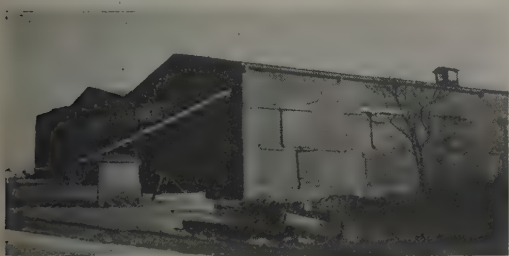
Came prohibition. Came Volstead. Came fox feed. It was this way: The Early & Daniel Company, grain, hay, and feed concern of Cincinnati, availed itself of the opportunity to purchase some of the before-mentioned properties which the Eighteenth Amendment put out of the running. Thus, about 10 years ago, a great impetus was given to the expansion program of the Early & Daniel Company. It led to a great enlargement of the grain, hay, and feed trade already established for many years. It led, incidentally, to the development of a little industry within an industry, unique in the history of grain company sidelines.

Mr. Lord, in charge of publicity for the Early & Daniel Company, relates:

"Finding that the manufacture and national distribution of dog feed was profitable, we looked about for other similar opportunities. We discovered that there were not less than 4,000 registered silver fox farms in the United States. Not one of these had less than 20 foxes. One concern in Wisconsin had a fox population which never was allowed to dwindle below 1,600.

"The business is extra profitable, we found. The demand for the fur was growing, and so was the business of producing it. The fox legions must be fed. We decided to seek that trade.

"The result is that we worked out a fox biscuit



PART OF EARLY & DANIEL PROPERTY

formula. It calls for some whole wheat bread, certain quantities of beef, cod liver oil, and certain other ingredients which remain our secret. These feed elements are blended by high-power equipment. We use a dough mixer, for instance, the peer of what the largest bakeries can show. There is a huge cracking unit. Some of the ingredients are baked in our ovens for 30 minutes. The final form of the feed is a biscuit about two inches square and a quarter of an inch thick. Watch a fox devour it, and you'll respect its palatability.

"Certain fox raisers give their fur bearers this feed twice a week, giving six to eight biscuits to a fox. Others feed this product on alternate days. In any case, the concentrated feed value of this biscuit means relief from the chore of assembling and mixing a properly balanced fox dinner.

"We know by this time that fox feed as a sideline for our hay, grain, and standard feed trade, undoubtedly pays."

The big line in the large feed department of this concern is, of course, cattle feed. That is another

Fox Feed Is New Grain Sideline

By FELIX J. KOCH



story. However, there are some interesting facts in connection with developing molasses feeds by this same company that are worth attention here. These ideas are not as novel as those related in connection with fox feed, but are definitely new compared to data on standard feeds.

About four years ago, the Ohio State University set out to try an interesting case. The Early & Daniel experts had long believed that cane molasses would provide a most efficient feed for poultry. Professor Dakan wanted to find out if they were right. The university had good sized flocks, and normally, the regular pens would have been the scene of the molasses trial. In this case, though, the experimenters had their doubts. They did not care to deliberately waste good feathered stock on this type of test.

So the very poorest hens were set aside. They were segregated in the late fall, moulting time, to remain until late spring—potential sacrifice to feed



THE REASON FOR SILVER FOX FEED

science. During their ordeal, they were to be fed exclusively on the feed from the Cincinnati concern. The Early & Daniel Company also agreed to pay the November-to-May salaries of three youths whose job was to chaperone the molasses-fed flocks. Mr. Lord made several trips to the experimental farm to personally check the progress being made.

"By way of check," he relates, "we divided our flock into four groups. Each of these was put on a different ration. The first lot received what might be termed as the regular, standard formula; the second pen got much the same fare, except for a 3 per cent substitution of molasses; the third flock got the same, but with 5 per cent molasses; the last flock got a 10 per cent molasses ration.

"After things had progressed far enough to seem fair, we began to investigate the results. We wanted to see what happened as regards weight. We wanted to know about egg-production. We wanted to learn about hatchability of those eggs. It wasn't very long before we were sure that a 10 per cent molasses mix was altogether too heavy. The egg production not only did not go up; instead it grew distinctly lower. On the other hand, we proved, beyond a shadow of a doubt, that a 5 per cent molasses mix is the ideal feed. Molasses contains about the same amount of carbohydrates that one will find in corn. Basically, they have about the same origin.

"Viewed, therefore, as a feed base, the veriest tyro recalls that corn is considerably dearer than

molasses equivalents required to perform a like result for the hens. Naturally, then, placing molasses before poultry, instead of corn, means a saving.

"Even were molasses and corn of the same price, it would pay to use the molasses. It would pay if molasses were even somewhat dearer than corn, because using molasses for corn up to 5 per cent, reacts against certain poultry diseases."

The Early & Daniel Company draws upon all sections of the country for the feed ingredients used in its varied line. It is one of the best customers, for instance, of the newly opened cottonseed market at Memphis, Tenn. A tremendous



ENROUTE TO CINCINNATI FOR DOG FEED

dairy feed trade is handled by this concern, and full advantage is taken of the milk-producing character of the cotton by-product.

BRITISH PRESS SHIES AT HAY TRADE'S HORSE CAMPAIGN

The sharp decline in the use of the horse for transport, with the attendant decrease in hay consumption, has caused reactions in England similar to those in America. Some time ago, the British Hay Trade Association held a conference at which members were aroused to the need of prosecuting their "back to the horse" campaign more vigorously than ever.

Members departed with grim and heroic looks, but their efforts to get the British press in on the horse and hay revival have failed. Some members attribute the defeat to the "kept press," which they allege is practically subsidized by advertisers. Motor cars and trucks are heavily advertised, but unfortunately, there are no horse advertisers.

HAY CUTS DAIRY COSTS

Dairymen are supposed to be among the shrewdest buyers of feed which the elevator-dealer has to serve. They calculate feed protein down to split fractions—as a banker figures interest. Yet O. E. Reed, feed expert under Secretary Hyde, of the Department of Agriculture, thinks that many of them are overlooking a good bet in feed when they minimize the value of the good hay available from local warehouses.

More net profit per cow can be made under some conditions, he says, by feeding a limited grain ration or even a roughage ration in preference to a full grain ration.

To demonstrate this statement, Mr. Reed cites the results of an experiment by the bureau at Huntley, Mont. In this experiment three plans of feeding were compared. Ten cows were fed over a three-year period on each of the following rations: For one year (1) roughage alone, consisting of corn silage, roots, Alfalfa hay, and irrigated pasture; for another year (2) the same roughages and a limited grain ration of one pound of grain

mixture to each of six pounds of milk produced; and for still another year (3) the same roughages and a full grain ration of one pound of grain to each three pounds of milk produced.

On the first ration, when production was figured to maturity, the cows averaged 478 pounds of butterfat, on the second ration 584.1 pounds, and on the third 619.9 pounds. At the prevailing prices for feed and for milk and butterfat, the returns over cost of feed were \$161 per cow on the first ration, \$185 on the second, and \$132 on the third. The limited grain ration was therefore the most profitable, with the roughage ration a close second.

FEEDSTUFFS FOR TROUT

"Here is a field for the enterprising feed dealer," says the *Northwestern Miller* which reports the use of red dog, corn germ meal, corn gluten, and other related products for brook trout feeds.

Results of experiments at Cornell University, and the Connecticut State hatchery, indicate that fish meal, peanut meal, mill offal and corn feeds all are capable of producing good growth in trout if they are supplemented with 30 per cent of raw liver.

DUCK FEED MUST BE DIFFERENT

It is the secret ambition of the duck-raising fraternity to supplant the turkey as a holiday fowl with the all-dark meat bird. They may never achieve this end, but duck raising, nevertheless, is a fast-growing industry in some sections where feed dealers must know, among other things, the difference between a duck and chicken ration.

Chick rations which contain ground oats or ground barley hulls, reports the Wisconsin Experiment Station, should not be used for baby ducks. The official Badger state duckling feed formula is: 50 pounds of yellow corn, 20 pounds of wheat bran, 20 pounds of wheat middlings, 10 pounds of meat scrap, five pounds oyster shell or high grade limestone, and one pound of salt. Dried milk can well be added. Chopped green clover or Alfalfa hay also is suggested.

MILK FEEDS STIMULATE POULTRY APPETITE

In addition to all the nutritional virtues with which dried milk and dried buttermilk have been credited, sale of this product from the elevator's sideline stock is advantageous from an entirely different angle. It encourages the consumption of more feed than would otherwise be possible. In other words, milk feed whets the appetite. The dealer's customer cannot complain, for production is stimulated at the same time.

"Buttermilk mashies" are becoming more popular each season with poultrymen and dealers alike. If the dealer mixes his own mash, a good general rule to be followed is the insertion of five pounds of milk products in every 100 pounds of mash for adult stock, and 10 pounds for growing chick rations.

EXPLAINS COD OIL PROCESSES

Elevator feed dealers, handling cod liver oil as one of their sidelines, are familiar enough with the active demand for this product. Trade in this feed ingredient has grown so fast, however, that handlers of it as yet know but little as to its source. The processes by which the potent grain feed supplement is developed, represent valuable information for the dealer, as a general knowledge as to the value of various oil grades on the market may thus be secured.

D. H. Horton, head of the New York Experiment Station on Long Island, reviews this subject as follows:

"The most primitive method of securing cod liver oil was to throw the livers of the cod into a barrel, tub or vat and leave them out in the sun and weather. The livers rotted and fell apart releasing part of the oil which came to the surface and could be skimmed off. The words, crude, raw, brown, red, sun-ried have all been applied to this product, which is in reality a by-product of decomposition. This brown oil contains a comparatively high per-

cent of free fatty acids and may have a rather strong and offensive odor.

"Experiments have indicated that this red or brown oil was a satisfactory product for poultry feeding. On the other hand there have been some complaints that this grade of oil has caused indigestion. While this oil is cheaper, it may be poor economy unless it is bought from dependable firms.

"The yellow colored oils are made by taking fresh livers and subjecting them to steam in a special kettle. This steam-ried oil does not have the objectionable odor and color of the rotted oil. Furthermore, the vitamin content is not destroyed by the process of steaming. This type of oil may be 'refined' by chilling and pressing to remove the stearin. There is no advantage in refining oil except that it will not freeze, although it is true that a refined oil presents a better physical appearance.

"'Tested' is a term which is much abused. An oil may be tested for free fatty acids or it may be tested for impurities or it may be tested for certain other physical requirements. It may be biologically tested. A biological test is the one in which a dealer should be interested because it indicates that a particular oil has been fed to white rats or chickens and has actually proved its value from a feeding standpoint. While the so-called American oils which include those from Newfoundland have, in some cases, proved superior, Norwegian oils have also given satisfaction."

FEED AND GRAIN MERGERS FOLLOW MILL ALLIANCE

The Larowe Milling Company, Detroit, Mich., if current negotiations work out, will be the eighth feed manufacturing property appended to the long list of establishments owned by General Mills, Inc. So valuable is the trade in branded feeds through local elevators and other outlets, that all the old feed brands involved will remain intact under the reorganization.

The huge combine of feed mills, now only begun, is only one of the offshoots of milling merger which so far has brought 21 flour mills under unified control. A branch growth of the General Mills organization, announced this month, is the General Grain Company, with headquarters in Oklahoma City. A 4,000,000-bushel capacity will be offered by the elevators of this concern, formed to serve the mills of the parent company.

MOLASSES A TRI-PURPOSE POULTRY FEED

For fattening rations, for egg mashies, and for starting feeds, good cane molasses can be used to advantage. The famous sweet feed ingredient has long been a standard part of many stock feeds, but the correct proportions for the poultry feed mixer are not so well known, and will bear repetition:

Seven and a half pounds of cane feed molasses to 100 pounds of regular dry fattening feed is conceded to be a normal proportion. For the egg mash, molasses at the rate of five pounds to 100 pounds of dry stock, is recommended. Up to 10 parts of molasses can be used to replace cereal grains if an all-mash system is followed.

In the growing or "starter feeds," three pounds of molasses to 100 pounds of dry feed apparently is the best ratio.

FEED PRICE

The feed market, during the forepart of March, continued weak as the result of a slow demand and the liberal offerings, according to the Feed Market Review of the United States Bureau of Agricultural Economics. Despite the decline in the prices of feeds in the last two months, they are still generally higher than the average for the corresponding date of the past five years, and relatively higher than feed grains. Corn prices were higher during February than the average for that month of the past five years, but oats prices were equal to the average and barley prices considerably lower.

Offal production continued above the weekly average of the past four years. Flour output at the

principal milling centers during the week ending March 2, totaled about 1,435,000 barrels.

Linseed meal prices were lower than a week ago due to a poor demand for offerings. In the Northwest, the market was easy. Jobbers, country dealers and mixed feed manufacturers were reported uninterested except for occasional carlot shipment. The Buffalo market was also weak, due largely to a slow demand, but offerings were light, as mills were running at about only 40 per cent capacity. Cottonseed cake and meal market continued quiet. Seed offerings continued small.

The gluten feed and meal situation continued easier, largely as the result of liberal offerings. The majority of the mills were reported back into market at Buffalo, but inquiry was for only small amounts. Production is heavy as mills are running near capacity. Gluten feed and meal were offered for April delivery at Chicago at same prices for this month's shipment.

The hominy feed market appeared unsettled; the Buffalo market was very weak with liberal offerings meeting a very poor demand. Mills and resellers were said to be pressing the market to effect sales. Mill production continues very heavy.

Alfalfa meal was weak with limited demand, except for high grade green meal. The slack demand prevailing for most feeds tended to weaken inquiry for Alfalfa meal at Kansas City. Stocks were increasing at that market but were mostly of medium to low grade, the demand for which was very limited. Choice meal was in fair demand from poultry feed manufacturers, but offerings were small.

MARCH HAY MARKET FIRM

Hay markets showed firmness during the week ending March 9, and prices advanced slightly, particularly in eastern sections, states the weekly hay market review of the United States Bureau of Agricultural Economics. Country hatling was interrupted in many areas because of bad road conditions and the lighter country shipments were reflected in smaller receipts at terminal markets. Pastures were showing some improvement in central and Gulf sections and the snow covering was adequate to the western lake region and the northeast, except in certain limited areas. Conditions appeared more favorable than for some time in the northern great plains.

Timothy markets were irregularly stronger with moderate receipts and a more active demand. Demand for good quality hay at Boston continued active but the bulk of offerings consisted of medium to lower grades and liberal concessions were necessary to move these types. Arrivals at New York were liberal, with the bulk of the supply of medium to poor quality in small bales which sold \$1 to \$2 below large bales. Receipts at Pittsburgh were light but were generally equal to trade needs. The Philadelphia market was quiet and offerings of good quality hay were scarce.

The Cincinnati market was somewhat irregular although a better inquiry for Timothy and Timothy-Light Clover mixtures was in evidence and prices for these hays advanced slightly. Southern shipping demand was limited and buyers were reported to be fairly well supplied as a result of recent heavy purchases. Receipts were materially less than in recent weeks and continued light offerings appear probable as a result of soft roads and pressure of farm work. Inquiry from Atlanta and Birmingham were only moderate, notwithstanding the reduced supplies of local hays and very limited offerings of Johnson Hay. Lighter receipts at Chicago reflected the recent lowering of price levels and buyers found it necessary to advance their bids in order to obtain necessary supplies. The St. Louis market was firm with inquiry for high quality hay active. Most of the arrivals at this market however were of unsatisfactory quality.

Alfalfa markets continued firm with light offerings and a continued active inquiry. Receipts at Kansas City were light and the unsatisfactory quality of the hay restricted trading, although shipping inquiry from the south was good, both for quality suitable for work animals and for dairies. There was also a good inquiry from Iowa and Ne-

braska with shipments of best quality moving direct to consuming areas and medium to lower grades going to terminals. Considerable third cutting Nebraska Alfalfa is moving to Colorado and Wyoming for lamb feeding. Demand at Omaha was active and prices for top grades advanced slightly with light offerings.

Pacific Coast markets were very firm with demand active. Supplies available at Los Angeles were much below trade requirements and prices at this market continued their upward trend. No high grade Alfalfa from the Lancaster Valley was available. Alfalfa at San Francisco was firm with a steady export demand. The Yakima Valley market situation weakened somewhat with warmer weather and prospects of improved pasturage causing stock men to confine their purchases to current needs.

Prairie markets were firm with light receipts and fair demand. Offerings at Kansas City were limited and stockyards were only moderate buyers but a broad shipping inquiry and the substitution of considerable prairie for timothy was a strengthening factor. Liberal supplies of Texas Prairie is reaching the army posts on government contracts but very little is being used locally at San Antonio, Tex.

HAY MEETINGS THIS MONTH

Conferences to discuss United States hay standards and Federal hay inspection will be held at a number of points during the latter part of March and the early part of April. They will be conducted by E. C. Parker, who is in charge of hay standardization and inspection, Hay, Feed and Seed Division, United States Bureau of Agricultural Economics. All persons interested are invited to attend and to join in the discussions which it is hoped will bring out constructive criticisms and suggestions relative to the standards and the inspection service.

The conferences will be held at or near the following places and those interested can ascertain the exact place, date and time of such conference by writing to any of the following persons:

Wm. A. Schoenfeld, Pacific Northwest Representative, Bureau of Agricultural Economics, 519 New Postoffice Bldg., Portland, Ore.

Walter J. Morgan, Federal Hay Inspection Supervisor, 700 Date St., Los Angeles, Calif.

M. R. Wells, Federal Agricultural Statistician, Phoenix Ariz.

L. H. Hauter, Assistant Director, Agricultural Experiment Station, State College, New Mexico.

C. M. Funk, Federal Hay Inspection Supervisor, Chamber of Commerce, San Antonio, Texas.

E. O. Pollock, Federal Hay Inspection Supervisor, 1513 Genesee St., Kansas City, Mo.

The notice is given by W. A. Wheeler, in charge of the Hay, Feed and Seed Division of the bureau, at Washington, D. C.

FEED MILLS IN THE FOREST

According to latest reports, the German scientist, Professor Bergius, has organized the Holzdyrolyse A. G., for the purpose of erecting factories in which wood cellulose is to be converted into high quality feeds.

This preparation is to be furnished from low grade woods in powdered form and to be of a sufficiently low price to replace maize and other feeds. The first plant is to be built in Stettin, to employ about 300 persons, handling about 600 to 700 tons of raw and finished product daily. Other plants are to be erected also in Upper Silesia and in the Black Forest.

YORK FEED DEMAND DULL

By C. K. TRAFTON

In spite of a further lowering of prices all along the line, trade in feedstuffs in the New York market was fully as dull as usual during the past few weeks.

It is quite evident that buyers were still well supplied and with the season of lighter consumption approaching, are generally inclined to limit purchases to immediate necessities. This attitude seems to be logical in view of the general expectation that prices are bound to fall to still lower levels. Southwestern mills and Canadian

mills again are competitors with local and Buffalo producers. From the seller's standpoint this increased competition comes at a particularly unfortunate time, inasmuch as Buffalo mills are quite evidently in a much more favorable position to make shipments and there was a marked increase in the offerings from that quarter.

In the meantime, jobbers who are still well-stocked, owing to inability to move the feeds bought months ago, are displaying anxiety to sell, in some cases, at substantial concessions below mill prices. The above remarks apply especially to Spring bran and standard middlings.

NEW FEED BRANDS

"BROOKS" for Dairy Feed. Brooks Elevator Company, Minneapolis, Minn. Filed October 29, 1928. Serial No. 274,492. Published February 12, 1929. Claims use since October 9, 1928.

"ROSE'S DOG AND PUPPY FEED" for Dog and Puppy Feed. Granville P. Rose, Jr., doing business as G. P. Rose & Company, Nashville, Tenn. Filed November 30, 1928. Serial No. 276,096. Published February 12, 1929. Claims use since June 11, 1928.

"DIGESTA-BONE" for Steamed Bone Meal used as a feed for stock and poultry. Pacific Bone Coal & Fertilizing Company, San Francisco, California. Filed December 15, 1928. Serial No. 276,798. Published February 12, 1929. Claims use since September 1, 1927.

"SUGRD-COTTO" for Feed for Livestock. Abingdon Milling & Cattle Feeding Company, Abingdon, Ill. Filed December 29, 1928. Serial No. 277,-

tember 29, 1928. Serial No. 273,145. Published February 26, 1929. Claims use since June 23, 1928.

"CORENCO" for poultry and stock feeds, whole or ground; and for processed bone and meat products for stock and poultry; also other products. Consolidated Rendering Company, doing business as Atlantic Packing Company, Boston, Mass. Filed June 15, 1928. Serial No. 268,080. Published March 5, 1929. Claims use since about July, 1920.

"CHAPIN KERNELS" for prepared feeds for poultry, livestock, birds and game animals. Chapin & Company, Chicago, Ill. Filed November 3, 1928. Serial No. 274,766. Published March 5, 1929. Claims use since February 18, 1928.

Trademarks Registered

252,524. Stock Foods of Different Kinds—namely pig meal, dairy feed and dairy supplement; poultry feeds—namely laying mash, starter mash, growing mash, chick feed, scratch feed. Northwestern Distributing Company, Inc., Mason City, Iowa. Filed July 3, 1928. Serial No. 269,033. Published October 30, 1928. Registered February 12, 1929.

252,926. Feed-Balancing Preparations for Livestock and Poultry, including mineral supplement ration. Sunshine Laboratories, Colony, Kan. Filed April 18, 1928. Serial No. 265,074. Published November 20, 1928. Registered February 19, 1929.

253,011. Foods of Different Kinds—namely, pig meal, dairy feed, and dairy supplement; poultry feeds—namely, laying mash, starter mash, growing mash, chick feed, scratch feed. Northwestern Distributing Company, Inc., Mason City, Iowa. Filed July 3, 1928. Serial No. 269,034. Published October 30, 1928. Registered February 19, 1929.

253,038. Animal Feeds—namely molasses feed, sugar cottonseed feed, and dairy feed. Tarkio Molasses Feed Company, Kansas City, Mo. Filed



337. Published February 12, 1929. Claims use since February 1, 1921.

"CREAM-O-MILK" for Dairy Feeds. Flory Milling Company, Inc., Bangor, Pa. Filed December 31, 1928. Serial No. 277,415. Published February 12, 1929. Claims use since November, 1926.

"DAISY" for Oats used for Stock Feed. Norris Grain Company, Chicago, Ill. Filed October 10, 1927. Serial No. 255,861. Published February 19, 1929. Claims use since about January 1, 1912.

"ELCO SHORTOLA" for Mixed Feed for Livestock and Poultry. El Campo Rice Milling Company, El Campo, Texas. Filed November 6, 1928. Serial No. 274,873. Published February 19, 1929. Claims use since August 27, 1927.

"ALFALFA ELCO LASS" for Mixed Feed for Livestock and Poultry. El Campo Rice Milling Company, El Campo, Texas. Filed November 6, 1928. Serial No. 274,874. Published February 19, 1929. Claims use since April, 1925.

"ELCO BRANOLA" for Mixed Feed for Livestock and Poultry. El Campo Rice Milling Company, El Campo, Texas. Filed November 6, 1928. Serial No. 274,875. Published February 19, 1929. Claims use since August 27, 1927.

"ELCO BRAN POLASS" for Mixed Feed for Livestock and Poultry. El Campo Rice Milling Company, El Campo, Texas. Filed November 6, 1928. Serial No. 274,876. Published February 19, 1929. Claims use since April, 1925.

"ELCO BRAN LASS" for Mixed Feed for Livestock and Poultry. El Campo Rice Milling Company, El Campo, Texas. Filed November 16, 1928. Serial No. 275,424. Published February 19, 1929. Claims use since April, 1925.

"KARBOTEX" for food product for livestock, having as a basis cane pulp and molasses. Honokaa Sugar Company, Haina, Hawaii. Filed Sep-

tember 27, 1928. Serial No. 273,083. Published November 27, 1928. Registered February 19, 1929.

253,126. Scratch Feeds. Frank T. Caughey Company, Detroit, Mich. Filed September 18, 1928. Serial No. 272,598. Published November 20, 1928. Registered February 19, 1929.

253,314. Prepared Poultry Feeds. Chapin & Company, Chicago, Ill. Filed November 3, 1928. Serial No. 274,764. Published December 11, 1928. Registered February 26, 1929.

253,316. Prepared Poultry Feeds. Chapin & Company, Chicago, Ill. Filed November 3, 1928. Serial No. 274,762. Published December 11, 1928. Registered February 26, 1929.

253,317. Prepared Poultry Feeds. Chapin & Company, Chicago, Ill. Filed November 3, 1928. Serial No. 274,763. Published December 11, 1928. Registered February 26, 1929.

253,395. Dairy Feed. Phelps & Sibley Company, Inc., Cuba, N. Y. Filed May 28, 1928. Serial No. 267,142. Published December 11, 1928. Registered February 26, 1929.

Not Subject to Opposition

"TARKIO" for Animal Feeds—namely, molasses feed, sugar cottonseed feed, hog meal, pig meal, and dairy feed. Tarkio Molasses Feed Company, Kansas City, Mo. Filed September 13, 1928. Serial No. 272,366. Published February 12, 1929. Claims use since October 1, 1913.

Trademark Registrations Renewed

72,501. Dog Biscuits. Registered January 26, 1909. Sterling Biscuit Company, Boston, Mass. Renewed January 26, 1929, to Wheatworth, Inc., New York, N. Y., a corporation of Delaware, assignee by mesne assignments. Registered March 5, 1929.

FEDERAL POSITIONS AS GRAIN SPECIALISTS OPEN

The United States Civil Service Commission announces open competitive examinations for the following positions: Associate grain, hay and feed marketing specialist, assistant grain, hay and feed marketing specialist, associate marketing specialist (hay inspection), and assistant marketing specialist (hay inspection). Applications must be on file not later than March 27, 1927, and should be addressed to the commission at Washington, D. C.

The salaries range from \$2,600 to \$3,700 a year.

Only men are eligible for these hay grade inspection, and grain marketing investigational posts. Full details and examination blanks may be had upon request from the commission.

EAST SHORT OF CHOICE HAY

By C. K. TRAFTON

There were no developments of interest or importance in the New York hay market during the last month and prices for practically all grades are exactly the same as those quoted a month ago. Speaking in a general sense, receipts were usually sufficient to meet the demand so that buyers were not forced to raise their bids to secure hay, while on the other hand, there was no indication of an over-supply, at least as far as choice grades were concerned; and as a consequence receivers were not forced to shade prices.

As noted so frequently in the past, really choice No. 1 was extremely scarce and firm; good No. 2 usually being the best grade included in the daily arrivals, the bulk of which consisted of No. 3 or poorer. There has been a marked over-supply of very poor qualities: Grassy mixtures, weather-streaked, stained and musty hay, especially in small bales. Buyers were inclined to run away from such hay which became difficult to sell.

During the greater part of the period receipts were gradually tapering off and during one week only 27 cars were received at all New York terminals. This naturally created a firmer feeling among receivers but they were unable to establish a higher range of prices as buyers were not disposed to climb for supplies, although for a time there was a good active demand for large bales of No. 2 hay or better.

FEED GRAIN CROP LARGE

The total 1928 production of the three feed grains, barley, oats, and corn, in the European countries so far as reported is 58,577,000 short tons, compared with 57,430,000 short tons in 1927, and 63,977,000 short tons in 1926.

The 1928 production of barley in the 41 countries so far reported, which in 1927 raised 82.5 per cent of the world total exclusive of Russia and China, now stands at 1,468,612,000 bushels, an increase of 18.2 per cent over the 1,242,998,000 bushels harvested in 1927. The production of 738,941,000 bushels in the 27 European countries reported, however, is less than 12 per cent greater than that of the same countries in 1927.

The 1928 oats production in the 35 countries which in 1927 raised more than 93 per cent of the world total exclusive of Russia and China, now stands at 3,838,707,000 bushels, an increase of 11.7 per cent over the 3,437,785,000 bushels raised in 1927.

Total exports of oats from the United States, Canada, Argentina, and the Danubian countries as far as reported from July 1, to the latest dates available amount to 33,075,000 bushels, an increase of 17.3 per cent over the 28,201,000 bushels which went out during the same periods of the preceding year.

The 1928 production of corn in 18 countries thus far reported, which for three years have raised 90.5 per cent of the Northern Hemisphere crop exclusive of Russia, now totals 3,290,756,000 bushels, a slight decrease from the 3,305,199,000 bushels harvested in 1927.

RECENT JAY BEE INSTALLATIONS

The following companies have recently installed Jay Bee feed grinders in their plants:

Sobisch Trading Company, Hinton, Okla.; Gilmore Elevator, Tecumseh, Neb.; Highland Lake Mills, Hen-

derson, N. C., 1 No. 2 UX; Rochester Co-Op. Co., Rochester, Indiana, 1 No. 3 UX; H Grog, Chicago, Ill., 1 No. 2 S; Friona Gin Company, Friona, Texas, 1 No. 4 S; Copeland Bros., Lone Wolf, Oklahoma, 1 No. 3, US; D. B. Rang, Willard, Ohio, 1 No. 3 S D.C.; Carrollton Farmers Elev. Co., Carrollton, Ill., 1 No. 3 S D.C.; Johnson Bros., Shenandoah, Iowa, 1 No. 4, W D.C.; Thompson & Wisenart, Heavener, Okla., 1 No. 4 W; E. E. Thompson, Mt. Perry, Ohio, 1 No. 3 UX; Dewine & Hamma, Yellow Springs, Ohio, 1 No. 3 UX; Palmer & Nelson, New London, Ohio, 1 No. 2 S D.C.; Wm. Graft, Son, Warsaw, Ind., 1 No. 3 U; Liners Lewis, Ferdinand, Pa., 1 No. 3 UX D.C.; Williams Milling Co., Williams, Ind., 1 No. 3 U; Star Engineering Co., Wichita, Kansas, 1 No. 3 W D.C.; Alexander Bros., Osgood, (Drake Co.), Ohio, 1 No. 2 S D.C.; Harper Grain Co., Pittsburgh, Pa., 1 No. 2 UX; Graham Bros. Farms, Washington, Ind., 1 No. 3, UX D.C.; Deshler Roller Mills, Deshler, Nebr., 1 No. 4 W D.C.; Bish Feed Company, Veedersburg, Ind., 1 No. 3 UX; Chas. Bayman, Black Lick, Ohio, 1 No. 3 UX; Creek Trading Co., Okemah, Okla., 1 No. 4 W with fan; T. A. Halfmann, Son, Chillico, Wis., 1 No. 2 S D.C.; A. L. Kolb, Wauseon, Ohio, 1 No. 3 W D.C.; Farmers Elev. Co., S. Whitley, Ind., 1 No. 3 W D.C.; Waverly Mill & Elev. Co., Waverly, Ill., 1 No. 2 UX; Coyle Cotton & Produce Co., Pawnee, Okla., 1 No. 4, W with fan; Dippald Bros., Edwardsville, Ill., 1 No. 3 W with fan; Boughtonville Farmers Exch., Boughtonville, Ohio, 1 No. 3 S; E. C. Bolton, Cleveland, Ohio, 1 No. 3 UX D.C.; Lyon & Greenleaf, Legonier, Ind., 1 No. 3 S D.C.; Ernest Striby, Denver, Iowa, 1 No. 4 T; Connecticut Molded Prod. Corp., Meriden, Conn., 1 No. 1 B; Raven Mineral Mfg. Co., Council Bluffs, Ia., 1 No. 4 W; Loudonville Farmers Equity, Loudonville, Ohio, 1 No. 3 W D.C.; J. H. Frather, Palestine, Ill., 1 No. 3 S D.C.; Long & Marshall, Dixon, Ohio, 1 No. 3 S D.C.; Rosser Milling Co., Appatomax, Va., 1 No. 3 B with fan; Mangelsdorf Seed Co., Atchison, Kans., 1 No. 3 W D.C.; E. N. Cook, Plymouth, Ind., 1 No. 2, S D.C.; Monroeville Equity Union Exch., Monroeville, Ind., 1 No. 3, W D.C.; Farmers Mills, Huntingburg, Ind., 1 No. 3 S; W. E. Pierson, Osceola, Nebr., 1 No. 4 W D.C.; Eau Claire Farmers Exch., Eau Claire, Mich., 1 No. 3 S D.C.; Beason Milling Co., Cayuga, N. Y., 1 No. 4 W D.C.; Convo Equity Exch., Convo, Ohio, 1 No. 3 S D.C.; G. Bernd, Co., Macon, Ga., 1 No. 2 T with fan; Bidson Coal & Gr. Co., Leon, Iowa, 1 No. 3 UX D.C.; Sampson Service, Clinton, N. C., 1 No. 3 S D.C.; Lowell Hay & Grain Co., Lowell, Ind., 1 No. 3 S D.C.; Russel French, Findlay, Ohio, 1 No. 4 W D.C.; Farmers Co-Op Co., Leonard, Ill., 1 No. 2 UX; Robison Grain Co., Colorado Springs, Colo., 1 No. 3 U.

RECENT HAINES FEED MIXER INSTALLATIONS

Installations of the Haines Feed Mixer, built by the Grain Machinery Company of Marion, Ohio, have been made in the plants of the following companies, the No. 1 size being of 40 bushel capacity, and the No. 3 size of 80 bushel capacity.

Teske Coal & Feed Company, Chaska, Minn., No. 3; J. E. Hale, Collins, Iowa, No. 1; Northern Supply Company, Cameron, Wis., No. 1; Knecht Milling Company, Hartford City, Ind., No. 3; J. C. Walker & Son, Kinzer, Penna., No. 3; Hugo W. Anderson, Barnum, Minn., No. 1; Colville Feed & Supply Company, Utica, Ohio, No. 3; George Helm, Stockton, Mo., No. 1; Teske Milling Company, Davenport, Iowa, No. 3; J. L. Stauffer, Gap, Penna., No. 3; L. H. Allen, Tolar, Texas, No. 1; Yale Elevator Company, Yale, Mich., No. 1; J. C. Walker & Son, Gap, Penna., No. 3; S. B. Swope, Canal Winchester, Ohio, No. 1; Holdingford Milling Company, Holdingford, Minn., No. 1; Styerwalt Milling Company, Greenfield, Ohio, No. 1; Spurrier Brothers, Marysville, Ohio, No. 1; Elkhart Mills, Elkhart, Kansas, No. 1; Yoder & Company, West Liberty, Ohio, No. 1; Raabe Brothers, Fort Jennings, Ohio, No. 3; Baxter Mill & Elevator Company, Vinita, Okla., No. 1; Pioneer Elevator & Lumber Company, Hopkins, Minn., No. 1; John Connolly, Fair Play, Mo., No. 1; D. Iden & Son, Hanoverton, Ohio, No. 1; D. A. Thomas & Son, Saegertown, Penna., No. 3; W. M. Zook & Son, Rothville, Penna., No. 3; Fred Route, Amery, Wis., No. 1; North Branch Milling Company, North Branch, Minn., No. 1; Odenweller Milling Company, Kalida, Ohio, No. 3; Farmers Union Co-operative Association, Ashland, Neb., No. 3; Durand Milling Company, Durand, Mich., No. 1; W. C. Elrod, Fair Play, Mo., No. 3; Chickasha Milling Company, Chickasha, Okla., No. 1; Harry H. Riecke, Preston, Md., No. 1; Hubbard Milling Company, Mankato, Minn., No. 3; Johnson & Clark, Alexandria, Ohio, No. 3; Farmers Exchange, Bolivar, Mo., No. 1; G. A. McCracken, Mannford, Okla., No. 1; Lake Charles Feed Company, Lake Charles, La., No. 1; Delphos Equity Exchange, Delphos, Ohio, No. 1; Mitchell-Maskrey & Co., Maquoketa, Iowa, No. 1; Nolte & Haveman, Oshkosh, Wis., No. 3; East Fayetteville Elevator Company, Fayetteville, Penna., No. 3; Villa Park Feed & Milling Company, Villa Park, Ill., No. 1; F. F. Aydt, Dahlgren, Ill., No. 1.

TRANSPORTATION

NEW RIVER FREIGHT CARRIERS

The expenditure of \$2,500,000 for the construction of a fleet of 50 standard type barges which can operate on both the upper and lower Mississippi, was approved by the War Department this month. Other equipment and improvement projects are pending.

MORE NEW RATES DEFERRED

Grain rate schedules contained in Supplement No. 13 to the "Mo-Pac's" tariff, have been officially declared as suspended until next October.

The suspended rates would cancel the application of the Kansas City (Mo.) basis in connection with shipments of grain or its products from "Mo-Pac" points in Kansas and Nebraska.

ASK NEW BIRMINGHAM RATE

Thurman & Bray, of Lynnville, Tenn., have filed a formal complaint with the Interstate Commerce Commission, asking that body to prescribe reasonable rates between Riversburg, Tenn., and Birming-

ham, Ala., on bulk shelled corn and other articles rated under Class No. 10 in southern freight schedules.

The defendant in the case is the Louisville & Nashville Railroad. Reparation is claimed.

BILL WOULD SPLIT UP I. C. C.

To untangle the problem of freight rate appeals on grain and all other products, Representative Garber has introduced a bill to decentralize the powers of the Interstate Commerce Commission. The ambitious program laid down in the Oklahoma Congressman's bill, calls for a geographical division of labor among Federal rate judges. Somehow, through a general splitup of rate appeal powers, Representative Garber believes present chaotic conditions could be remedied.

REVISED RATES SUSPENDED

By an order entered this month, the Interstate Commerce Commission has suspended until October 1, 1929, the operation of the revised grain rate schedules published by the Baltimore & Ohio Railroad.

The suspended schedules provide that grain milling and malting provisions applicable at stations on the Baltimore & Ohio Railroad Company (San dusky, Willard, Stewartville, and Belpre, Ohio) will not apply when the inbound grain originates at stations on connecting lines, and the outbound product from transit point is destined to or via points on the Pennsylvania Railroad. An exception to this restriction is made on shipments destined to points on or via the Cumberland Valley division of the Pennsylvania line.

GRAIN WORLD

IMPORT MONOPOLY THIS SUMMER

THE new Norwegian government grain import monopoly will begin to function about July 1, 1929. Oscar Johnson, formerly president of a grain importing association, has been appointed administrative director. Norway established a similar monopoly in 1917, as a ware measure, and continued it until May, 1927. Since that date, grain cultivation in this country has been subsidized by the Government, but this scheme will be abandoned shortly, according to the Department of Commerce.

ARGENTINE exports this January included 8,661,000 bushels of corn, and 20,795,000 bushels of wheat.

PROLONGED drought in Mexico has caused heavy importations of wheat from South America. A. F. Nuper, commercial attache of the United States Government office in Mexico City, reports the wheat trust controlling most of the mills in Central Mexico, has contracted for a series of shipments, the latest of which arrived at Vera Cruz the first week in March, before hostilities developed.

WHEAT EXPORTS HEAVY

WITH net exports of wheat and flour from the principal exporting countries since July 1 running well ahead of last year, it appears that total exports for the crop year are certain to be well above those of the previous season by summer. Total imports into Europe are not expected to be much below those of last year, while shipments to non-European countries are expected to be well above the previous crop year's level. According to the Foreign Service of the Bureau of Agricultural Economics, developments since last October have made possible a revision of the preliminary estimates of imports and exports which were then published. The present revision of these estimates makes little change in the totals of probable imports and exports as made at that time. Significant changes have, however, been made in the figures for some of the individual countries. The probable import requirements of the various European countries have been changed but little. Great Britain's imports now appear likely to be about 5,000,000 bushels smaller than was thought in October. Italy, on the other hand, is now expected to import around 5,000,000 more bushels of wheat than was expected before. The course of events since October has confirmed the opinion then held, that low wheat prices combined with a short corn crop in Europe would result in European wheat imports for 1928-29 being maintained at nearly the previous year's level despite the fact that the 1928 wheat crop of Europe is estimated to be 12 per cent larger than the 1927 crop.

ALGERIA ranks second among Durum wheat exporting countries, yielding only to the United States.

A LOAN of over \$2,000,000 for the purchase of grain by co-operative grain companies in Roumania, has been arranged through a Berlin banking organization. Repayment of the loan with 7½ per cent interest is guaranteed by the Roumanian government. Most of the grain contracted for is supplied through a milling and grain firm which is a client of the banking firm supplying the funds.

EXPORTS of German rye to Lithuania are increasing. East Prussian rye is preferred by Lithuanian buyers and substantial quantities are regularly sold at good prices.

ASSOCIATIONS

CONVENTION CALENDAR

April 9-10—National Scale Men's Association's fourteenth annual convention at the Plankington Hotel, Milwaukee, Wis.

April 17-18.—Western Grain Dealers Association convenes for 1929 at the Hotel Roosevelt in Cedar Rapids, Ia.

May 6-10.—The American Association of Cereal Chemists convention at the Hotel President, Kansas City, Mo.

May 21-23.—Convention of Pacific States Seedmen's Association at the Hotel Del Monte, Del Monte, Calif.

June 4-5.—Annual convention of the Central Retail Feed Association, Plankington Hotel, Milwaukee, Wis.

June 6-8.—1929 convention of American Feed Manufacturers Association in French Lick, Ind., at the French Lick Springs Hotel.

June 9.—The Nebraska Farmers Elevator Managers Association hold their mid-year meeting at Horsky's Park, Crete, Neb.

June 17-18.—The Montana Farmers Grain Dealers Association convenes for the third time, at Havre, Mont.

June 26-28.—Meeting of American Seed Trade Association in Chicago, Ill.

October 14, 15, 16.—Thirty-third annual convention of the Grain Dealers National Association, at Hotel Pere Marquette, Peoria, Ill.

October 14-16.—Annual meeting of the Terminal Grain Weighmasters National Association, at the Hotel Pere Marquette, Peoria, Ill.

October 14-16.—Annual meeting of the Chief Grain Inspectors National Association, at the Hotel Pere Marquette, Peoria, Ill.

INDIANA DEALERS ELECT 18

Eighteen new members were unanimously voted into membership in the Indiana Grain Dealers Association at the February meeting of the board of directors. The new members, who had been secured since the middle of December and whose applications had been up for approval, are:

The Adams Bag Company, Chagrin Falls, Ohio.
The Chatfield & Woods Sack Company, Cincinnati, Ohio.
The Bemis Bros. Bag Company, Indianapolis, Ind.
The Diem-Wing Paper Company, Cincinnati, Ohio.
A. D. Hughes Company, Wayland, Mich.
F. H. Wellman, Holland, Ind.
Knecht Milling Company, Hartford City, Ind.
Imperial Mills, Cambridge City, Ind.
Sims Milling Company, Frankfort, Ind.
Busenbark Grain Company, Crawfordsville, Ind.
Ewing Mill Company, Ewing, Ind.
J. C. Milner, Sedalia, Ind.
Mayflower Mills, Ft. Wayne, Ind.
Springer & Brooks, New Lebanon, Ind.
Graham Farmers Elevator Company, Washington, Ind.
R. R. 1.
W. F. Fisher & Sons, Pittsboro, R. R. "A."
Consolidated Feed & Grain Company, Buffalo, N. Y.
Glenwood Grain Company, Glenwood, Ind.

The Association was represented at the General Conference of Crop Improvement Committees held in St. Louis, Feb. 20, by J. L. Davis, Seymour, Prof. A. T. Wianko of Purdue University, LaFayette, and the Association president, W. M. Moore of Covington, Ind.

N. D. DEALERS MEET IN FARGO

Beyond the horizons sweeps the Dakota prairies, flat under the wind-sweep. Out of it jutted determinedly the city of Fargo. Here last month met the North Dakota Farmers Grain Dealers Association, numbering 1,500.

The busy meeting revealed worthwhile progress made the year before and produced definite ideas and programs for the coming year. As the meetings progressed these things occurred:

Secretary Lee's report indicated that the \$700,000 claims of Association members against the onetime United States Grain Corporation, heretofore refused on technicalities, might be expected to be collected in full or part in view of the bill, S.J.59, instructing the comptroller general to open the books of that corporation.

Discussion brought the conclusion that the combine was a permanently established machine, but that it would probably be more utile in the western part of the state than the Red River Valley where some deemed it of questionable value to them because of moisture. The use of grain driers was encouraged after a canvass of their use among some elevator men had demonstrated satisfaction.

Reports revealed that the movement of grain cars was improved and blockades during the rush

practically eliminated, due to cooperation between grainmen and railway associations.

Supervisor-in-charge W. P. Carroll, of the Chicago Federal Grain Supervision office, gave the history of grain inspection of the federal government, detailing methods, and presenting technical information for better understanding.

L. H. Sumner, secretary of the Northwest Crop Improvement Association, urged four practices for seed grain betterment: keep posted on best local varieties of grain seeds; consider premium prices for smutless, clean grain and ergot-less rye; a committee of the dealers association to work with his association; and co-operation with county agents.

"In 1929," Mr. Sumner pronounced, "there was a tax of 45 cents an acre on every acre of wheat produced in North Dakota because there was not sufficient protection for the man who takes precautions to raise clean grain."

President A. M. Thompson, Cogswell; Vice-president John Maddock, of Maddock; Secretary-Treasurer P. A. Lee, Grand Forks, were re-elected.

A SECRETARIAL COMBINE

A combination of the offices and office forces of the National Hay Association and the Indiana Grain Dealers Association was effected following plans perfected at the board meeting of the latter



FRED K. SALE

organization March 1. Fred K. Sale, secretary of the National Hay Association, will become secretary of both organizations, taking up his joint duties April 15 when his body will move its offices to Indianapolis for the purpose.

The union has long been under the consideration of the grain association, and it is confident that the mutual arrangement will prove profitable and satisfactory. Miss E. S. True, now acting secretary of the grain dealers will become assistant secretary of both groups. Neither of the associations will lose their individuality, they only combining for economy of operation.

Mr. Sale, the joint secretary, is a young man of broad experience in the grain business and is fully conversant with its problems. He has a long time activity with organization and association work. The new arrangement will give Mr. Sale much more time in field work, in contacts with grain dealers at their individual places of business, thus benefitting by more intimate acquaintance with the individual's problems.

ILLINOIS DEALERS ELECT

Meeting in Joliet for a three day convention the Illinois Grain Dealers Association elected new officers for the coming year. They are:

C. H. Bonnell, of Rosamond, president; T. R.

Cain, of Jackson, first vice-president; E. E. Stevenson, of Ransom, second vice-president; W. H. Hindahl, of San Jose, treasurer, and Lawrence Farlow, of Bloomington, secretary.

Business at the meeting including the urging of a revision of farm tariffs and the quick completion of Illinois division of the Great Lakes to the Gulf waterway.

MINNESOTA DEALERS CONVENE

Two-thousand attended the twenty-second annual meeting of the Farmers Grain Dealers Association of Minnesota held in Minneapolis last month. In three days' sessions much progress was made and business done, the subject of costs and legislative strictures on operating receiving analysis.

University of Minnesota's H. Bruce Price, of the Division of Agricultural Economics, spoke on the operating costs of farmers' elevators. Insisting that routine auditing was essential to operation, Mr. Price developed his theme into the hazards of letting sidelines bear the costs of elevator operation. Such items should be kept separated, he asserted, otherwise the value of a sideline is destroyed, its overhead merely being added to the elevator overhead if the sideline is nothing more than a bolsterer of the latter costs. Sidelines serve not only to add to profits but form a business that operates steadily over the yearly period. Furthermore, selection of sidelines should be thoughtful; those requiring a specialist to handle should, obviously, be avoided.

Elevator operators, he said, should demand first class managers, and be willing to pay for them. High class managers are the life force of efficient, prosperous merchandising.

Several speakers covered every phase of costs. The use of by-products was insisted upon, and emphasis placed on a careful consideration of their values in each case. The constant question was posed: are you overlooking anything?

Build a surplus to avoid borrowing, to lessen interest charges, advocated M. O. Ueland of Halstad, Minn. Separate your managerial and clerical departments and avoid impartiality.

The abuse of credits, both by elevator operators and those with whom they deal was discussed. The essence of the discussion was the plea for constant development of cash business. The man with the cash business is the man with the cash.

Government practice in grading was attacked vigorously, and an appeal made for modification. Assertion was made that present regulations are too technical in character, resulting in confusion and loss to elevators. It was advocated that this country adopt a set tolerance such as allowed in England and Canada. The absence of a tolerance, it is believed, accounts for the present situation.

The purpose of the Seed Council of the state was defined. Through this body education in seeds and the attack of deceptive seed propaganda will be advanced.

Special topics of interest dealing with equipment, management and illustrative instances of success and failure were given.

Association Secretary A. F. Nelson's report was exceptionally thorough. An outline of it in brief:

I want to tell you without fear of contradiction that 90 per cent of the farmers' elevators that have gone out of business during the last five years have quit because the officers and stockholders did not take precautions to see that their stock was in the hands of producers.

Elevators confronted with a decrease in volume of grain handled and rapidly increasing cost of operations, naturally swung into the handling of commodities to help defray a part of the expense.

Side lines today are, in many instances, the chief items of maintenance, contrasted with when side lines were first handled on a very small margin.

Thirty different commodities are handled as side lines in varying numbers by the four hundred or more elevators canvassed. Out of those reporting specifically to questions asked, 318 handled coal, 281 handled feed, 238 handled flour, 210 handled twine, 187 handled salt and 200 handled seeds. Only 88 elevators handled implements, 82 handled posts, 64 wire, 43 hay, 54 wood, and 29 oil, while less than 20 handled lumber, tires, hay, cement, oil, brick, autos, tractors, and numerous other commodities.

Elevators that started grinding feed years ago are replacing their old and small machinery with larger and better equipment. Reports indicate that this service is profitable and links it beautifully with the elevator business, as the elevator can make use of screenings cleaned from the grain, and grind and mix to a certain extent their own feeds in addition to custom grinding. There is a large field of opportunity in feed grinding, one that should not be overlooked.

A vigorous set of resolutions constructed for active use by the members was made. They cover the essence of the meeting and are:

Brokerage Department Endorsed

Resolved that we heartily endorse the work of the Brokerage Department of the Farmers Elevator Association and recommend the use of its service to all of our membership.

Stock Lien for Feed Bills

Resolved, that we recommend to the Legislative Committee the feasibility of protecting the elevator company against the loss of accounts or grain furnished for feeding live stock, by legislation giving a priority lien against the live stock to which the grain and feed has been fed.

Political

Resolved, that we thank the Speaker of the House of Representatives for the recognition he has made

of our convention in delegating a committee of the House to visit the sessions.

Competitive Market

Whereas, there is a growing tendency toward direct marketing of live stock whereby the packers are securing their requirements from the country by selecting the best grades of live stock there, thus diminishing the buying power from the market, tending to depress the market, therefore be it

Resolved, that we urge the patronage of the central market and thus necessitate the patronage of the packer, thereby resulting in better markets because of competitive bidding in the market.

Code of Ethics.

Whereas, the National Association has prepared and adopted a Code of Ethics for farmers' elevator companies and their affiliated associations, be it

Resolved, that we recommend the use of this code as they have it prepared and that it be posted in the offices of the elevator companies of the State of Minnesota.

Pressure Tank Inspection

Resolved, that we favor House Bill 88 which amends the law governing the inspection of low pressure and air pressure tanks, used in operating truck dumps in country elevators and the incidental charges for the service.

Barge Channel

Resolved, that the completion of the inland waterways be completed in as short a time as possible to give to the Northwest the needed barge transportation facilities and ocean connections.

The election of officers for the coming year was a re-election of those now officiating: president, Theodore Frederickson, Murdoch; secretary, A. F. Nelson, Minneapolis; treasurer, J. E. Brinn, Stewarville.

Directors chosen: J. E. Brinn, C. A. Erickson, Hallock and Oscar Olson, Truman.

The name of the association was changed to the Farmers Elevator Association of Minnesota.

TRI-STATE SHIPPERS MEET

At the annual convention of the Tri-State Grain Shippers Association, held the latter part of February in Minneapolis, the members concerned themselves with a critical analysis of legislation pending and proposed and present crop qualities. Also emphasized at the meetings was the problem of sideline business and cash basis operation, two subjects that have been pre-eminent in grain men's meetings in every session.

Formal opposition was made against the Caraway bill, designed to abolish futures trading, and the Capper-Dickinson bill, which the Association claimed would put the secretary of agriculture practically in control of dairy markets.

In the resolution condemning the Caraway bill, it was stated that abolishing future trading would bring no benefit to agriculture; that it would result in putting the government in business and also interfere with the economic law of supply and demand.

In another resolution the practice of county agents handling seeds, grains and feeds through farm bureaus was scored, and the agents were requested to confine their activities so that the business of grain dealers will not be encroached upon. It also stated the members approval of impending legislation in regard to county agents which was felt to place them on a more practical basis, particularly in soil culture and seed improvement. Their field of activity was believed to lie entirely in education, smut eradication and ergot control.

The shippers recommended that small pressure tanks be omitted from inspection.

New and unknown, but heavily advertised varieties of seeds were criticized, the shippers objecting on the grounds that the constant appearance of new seed varieties, or the practice of re-christening old varieties and offering them as new, is detrimental to both farmers and the grain trade in general. Suggestion was advanced that the department of agriculture and experimental stations should undertake analysis and judgment upon all seeds, new and untried, and publicize their values before association members promoted the sale and distribution.

Definite consideration was given to the formation of a subsidiary to the shippers' association, to be known as the Tri-State Feed Dealers Association. The purpose of this new association would be the promotion and development of retail stores throughout the state among members of the parent association and new ones to be solicited. This action followed the decision that there is a need for properly operated sideline departments in smaller communities not at the present supplied.

Extensive discussion of grain treatments, especially with relation to smut and ergot was held. The executive secretary of the Northwest Crop Improvement Association, H. R. Sumner, in a review of his organizations work in crop betterment, brought out the following leading points in smut eradication:

Twenty per cent of the wheat received in Minneapolis is graded "smutty." The loss per acre in North Dakota and Minnesota will average about 40 cents.

I suggest close personal contact between the elevator man and his patrons. Spend time with them on three or four different occasions and get it firmly set in their mind that it is to their advantage to get rid of smut. You will help your business and make a better friend of your patrons.

We all made a mistake when we first gave the impression to the farmers that the treating of seed is

an easy matter. It is not. It is disagreeable and to be effective directions must be closely followed. Take it upon yourself to see that grain is treated and that it is treated properly.

I would recommend also that you work closer with the county agent. He is a public servant and is willing to help you.

If you can work out a scheme with your competitor and urge your farmers to raise smut free wheat you will be doing a wonderful work. When farmers who do not and will not treat seed find that his neighbor is getting a premium for his smut free wheat it will not be long until they, too, get into the seed treating habit.

The pertinent subject of cash selling, particularly in sidelines was covered, with the notable conclusion that grain men from every section have found operation on a cash basis is essential, and sidelines must be closely watched and restricted and accounted for individually.

Financial and expansion problems of the Association received considerable attention.

Association President F. E. Crandall's address summarized the opinion of the members and expressed the thought behind their active endeavors:

The reports from the Department of Agriculture would indicate that farm prosperity is decidedly on the increase. Improved farm methods are the order of the day and farmers now recognize that they must change from the old idea of the one crop program. Notwithstanding all indications point to an improved condition of the farmers, the agitation for legislation to meet the demand for farm relief is still the foremost issue in Congress.

At every meeting for the past few years we have been menaced with unfriendly legislation which has threatened to upset the well established and time tried methods of handling grain and which have been adequate to handle the vast grain business of the country. This year is no exception, and while it may be futile to conjecture what may come in the future, the grain trade cannot but feel uneasy as to what Congress may do at the special session which is likely to be called in April.

The equalization fee which has heretofore been considered the most important feature of the McNary-Haugen Bill will no longer be a factor in any future measure, but if a bill were passed upon the lines of the McNary-Haugen Bill even without the equalization fee, the effect on the grain trade of the country would, no doubt, be very serious.

The President-Elect in his speech of acceptance gave voice to the following:

"Our platform pledges the creation of a federal farm board of representative farmers to be clothed with authority and resources with which not only to still further aid farmers' co-operatives and pools, to assist generally in the solution of farm problems, but especially to build up with federal finance farmer-owned and farmer-controlled stabilization corporations which will protect the farmer from the depressions and demoralizations of seasonal gluts and periodical surpluses."

On the other hand, Mr. Hoover has time and again made it plain that he believes in individual initiative and has been strongly against government in business and opposed to anything which would prevent every man working out his own problems for himself.

A measure is now before Congress known as the Capper-Dickinson Bill which practically puts the Secretary of Agriculture in complete control of the grain market and empowers him to limit the size of trades, to fix contract grades and to fix the premium on the deliveries of grain above contract grade, and to fix the discounts on deliveries below. If such a bill is passed, the exchanges would have no right to make or change rules without obtaining the permission of the Secretary of Agriculture.

Our own legislature is also considering a bill which may be a very serious matter for grain dealers operating more than one elevator. This piece of legislation is designed against chain stores but, if passed, it will have a very marked effect on any elevator company doing a retail business at more than one station.

The bill requires that a heavy license fee shall be assessed against each unit and, in addition, that a gross sale tax shall be levied on all retail sales. This means that a tax is to be paid on all sales of flour and feed, grain, coal and other side lines which may be handled by a grain concern operating more than one unit.

It is only fair to say that in all probability the sponsors of such legislation did not intend to penalize any but chain stores, but the bill which is now being considered in the legislature, if passed, will mean an almost prohibitive tax on all grain firms doing a retail business and operating more than one unit. Such is the fate of the innocent bystander.

At our meeting a year ago we discussed the effect of landlords' and threshers' liens on the grain business and it was hoped that something might be worked out during the year which would bring us some relief due to the unfair way in which the grain men often suffer because of lack of knowledge of the existence of such liens. Our association has made some investigations in this matter but, so far, has been unable to find any way out of this difficult situation.

Complaint has been made by a number of our members who handle feeds of the unfair competition to which they are subject because of direct shipments to consumers. Grain dealers selling feed are obliged to keep a stock of feed on hand, they must possess equipment for handling it and must pay the salary of a man to be on hand at all times to take care of the local demand, and it would seem as though they were entitled to some consideration from the wholesalers of feed and not be subject to the unfair competition of direct shipments.

In nearly every other line, jobbers and manufacturers protect their customers. This is notably true in the coal business and it is difficult to see why at least some measure of protection cannot be extended to the dealers by the jobbers of feed.

I again appeal to our members to continue to support the association, as this is the only way in which our association can be of value. By working together we can accomplish much. I have no sympathy with a member who says he gets nothing out of the association, for I have found that we do not get the benefits of any service organization without putting something into it.

I close my five years of service as your president feeling that I have left much undone that should have been done, but I have served you to the best of my ability and I extend my thanks to the officers and directors and to the members for their kind consideration and cordial support.

President Crandall retires this year, his fifth.

And the nominating committee recommended: for president, Arthur Speltz, Albert Lea, Minn.; first vice-president, C. E. Dittes, Beardsley, Minn.; second vice-president, M. King, Sioux City, Ia.; for directors, John Dill, Wabasha, Minn., W. H. Richardson, Elgin, Minn., C. A. Quarnberg, Belle Fourche, S. D.

The meetings were concluded after three days, and no date was announced for the next.

WASHINGTON GROUP ELECTS

Western Washington feed dealers at their annual session held yesterday in the Tacoma Hotel, elected Charles England of Vashon, president of the organization for the ensuing year. Mr. England succeeds Hugh B. Clark of Tacoma.

Other officers elected were as follows: Vice president, R. M. Claget, of Snohomish; secretary-treasurer, George Thompson of Chehalis.

Floyd Olds of Seattle was reelected executive secretary and manager of the association.

Two directors were also elected, the others on the board being holdovers. Henry Gregorson of Battle Ground was chosen to succeed Harry Andrews of Woodland and W. B. Hart of Everson, Wash., was elected to succeed himself.

OHIO FARMER DEALERS MEET

Meeting for the fourteenth time, the Farmers Grain Dealers Association of Ohio, in their annual convention in the Waldorf Hotel, Toledo, Feb. 21 and 22, had outlined a clear picture of trade conditions, saw the presentation of newest items of their trade, heard ideas definitely shaped for their profit.

Welcomed to Toledo by Kent Keilholtz, president of the Toledo Produce Exchange, they heard him re-define the attitude of successful dealers and voice optimism in the Hoover administration. Said he:

The elevator operator, the same as the terminal dealer, has had many things to contend with in recent years. Times are changing. Many of us have found it necessary to add side lines to make our business profitable. Grain dealers have always been alert to recognize the changes and get into quick step, which has in most cases brought good results by the end of the year. We can look forward to the new administration without fear and with much hope. President-Elect Hoover, through his connection with the Food Administration during the war, has a god understanding of the problems in agriculture, and we look for remedies which will be beneficial not only to the farmer, but the country elevator operator and the terminal market as well.

Association President N. G. Bennett asserted the ceaseless need for cooperation, particularly for managers, showing what it had done.

Secretary E. G. McCorlum of the Indiana Farmers Grain Dealers Association urged comprehensive group buying in all sidelines of the business. He asked Ohio to join seven other states in coal purchases, and with ten associations in buying crushed oyster shells, thus realizing lower, quantity prices.

Exhibits of manufacturers in all allied lines drew ready interest, presented the newest, the novel and the profit making possibilities of many products from mills to feed.

KANSAS COOPERATORS MEET

The Farmers' Co-operative Grain Dealers' Association of Kansas held their annual convention in Hutchinson last week, where they heard the newest phases of grain dealing presented and several illuminating speeches on the problems of their business. It was the feeling at the meeting that farm relief legislation had the best opportunity ever for realization, and members anticipated a most productive coming year.

The president of the Missouri Pacific Railroad, L. W. Baldwin, presented the problems and methods of efficient railroad operation, bringing out the relation between elevator operators and railroads.

Offering a course-all for co-operative enterprises, but bringing out the fundamental secrets of their success, R. M. Green, professor of Agricultural Economics at the State Agricultural College said:

There is too much talking and preaching and not enough actual working agreements between members of farm organizations. Therein lies the main weak point and one which must be remedied.

There are six other weak points in farm organizations. We cannot expect to go blindly forward in our present footsteps; we must improve or quit.

The first of the six points, a common one, is too much selling in schemes and plans to farmers instead of backing existing organizations.

Another is need of closer contact between the producers and producers' organizations in order to get the highest possible quality of production.

We need more extensive terminal business that can deal more effectively with the milling trade, the chief market of the western Kansas producers.

Short-sightedness in financial policies, lack of adequate reserves, paying patronage dividends instead of building surpluses, lack of training for future managers, lack of educating producers to the value of quality wheat, were some of the other points. In 15 years the grain business will be far less developed than it is now.

An insistent note throughout the three-day session was the constant need for close contacts between directors and management; the need for high

class management, and the guarding against too close a margin of profits in operating.

"Operators working on a close margin," emphasized F. S. Betz of Chicago, "often are put to the added folly of recouping their losses by speculation."

A review of inspection and storage problems was made, clarifying the whole question. And R. D. Jarboe, senior Agricultural Economist of the Department of Agriculture lectured on recent developments in grain grading.

Resolutions called for immediate development of inland waterways, amendment to the landlords' lien laws requiring landlords to notify grain dealers in writing of claims; broadcasting of markets was urged, and a plea for strict following of the association code of ethics. A national committee of farmer elevator associations was asked for the betterment of co-operative enterprise.

New officers elected: L. E. Webb, Dodge City, president, to succeed J. B. Brown, of Larned, for nine years president; Mr. Brown elected to vice-presidency by the board of directors; W. O. Sand, Hutchinson, secretary-treasurer.

That the question of accounting, costs and education in co-operative grain dealing formed the basis of discussion, indicated their import, as every convention this year has made them the emphatic subjects of their meetings. The well attended meetings included independent dealers as well as members and managers.

WESTERN DEALERS CONVENE IN APRIL

The Western Grain Dealers Association will meet in Cedar Rapids, Iowa, on April 17 and 18. In addition to the regular association business, several important subjects relative to legislation and transportation will be dealt with.

Montana's great grain grower, Thomas D. Campbell, who recently was called as an advisor to the Soviet government of Russia, will present the general wheat situation and detail its relation to the Russian problem.

Transportation discussion is to be headed by Leo Golden, transportation manager of the Association. And a representative of the Department of Agriculture will explain the proposed Farm Relief bill, revealing its effect on the country grain dealers conduct of their elevators.

The farm relief problem is receiving special emphasis, and the meeting will have present Governor Hammill of Iowa and other state officials. Secretary Smiley of the Kansas Grain Dealers Association will cover problems of country elevators.

The tentative program calls for a thorough discussion of all pertinent subjects as well as formal entertainment. There will be an inspection of Cedar Rapids elevators. The headquarters will be in the Hotel Roosevelt.

EASTERN FEED DEALERS MEET

By JOHN B. G. BARCOCK

More than 250 feed dealers and manufacturers attended the annual midwinter meeting of the Eastern Federation of Feed Dealers, held in Binghamton, N. Y., February 21 and 22. Samuel Deuel of Pine Plains, N. Y., vice-president of the Federation, was in charge of the sessions, as President W. S. Van Derzee of Albany, N. Y., was forced to be absent, on account of illness. The meeting was featured with addresses by Professor F. B. Morrison of the department of animal husbandry, New York State College of Agriculture, at Ithaca, N. Y., and others; and by adoption of resolutions calling for the discontinuance of publication of wholesale feed prices, in bulletins issued monthly by the New York State Department of Agriculture, and by the Farm Bureau Federation; and for revamping of the New York state egg grading law, to provide for elimination of the "unclassified" grade of eggs, and for the light grading of storage eggs.

The chief entertainment feature was a banquet, at which Manager J. Kennard Johnson of the Binghamton Chamber of Commerce was chief speaker. Mr. Johnson delivered an inspirational address, and welcomed the feed men to Binghamton on behalf of the chamber and the community. The Federation also adopted a resolution calling upon all its active members to participate in an intensive membership campaign, with a view to more than doubling the present strength of 450. Each member is asked to obtain at least one new member, and to make a personal canvass of his territory.

It is expected that considerable aid in obtaining members will be given by feed manufacturers' salesmen, inasmuch as the S. Howe Company and the Charles M. Struven Company have each offered valuable prizes in a membership contest for the Federation, in which only manufacturers salesmen will be eligible to take part.

A. S. McDonald, of Boston, Mass., president of the Grain Dealers National Association, spoke briefly on pending legislation which will affect

farmers, feed dealers and manufacturers. He brought greetings from his association and pleaded for greater co-operation by all, with a view to furthering the best interests of producers, dealers and manufacturers.

Professor Morrison's address was featured by his declarations as to the great value of sun-cured legume hay (alfalfa) in the feeding of livestock. He said tests and experiments have proved the value of this hay for feeding purposes, and he said its vitamin content was high. This product is particularly rich in vitamin D, the professor pointed out, and also contains smaller quantities of the vitamins A, B and C. But to be of the most value it must be sun-cured. If cured under cover it does not possess the high vitamin content which is desired.

"I would have you recommend to farmers and dairymen the providing of plenty of good pasture land during the summer," said the professor. "There is much land used for pasturing purposes which hardly deserves the name of pasture. With good pasture in summer and a goodly proportion of legume hay or meal in winter, dairy cows should thrive and produce abundant quantities of milk. Meals containing portions of legume hay also are valuable for hog raising.

"Minerals are just as important as other feeds for livestock. Salt, lime and phosphorus are particularly helpful. I have been asked how much salt should be fed to animals, and I would say, 'give them all they want. Cows will take as much salt as they wish,—and no more, so we don't have to worry about that.' I also would suggest,—and this goes directly against older ideas and methods, the feeding of minerals to 'dry' cows. If you do that it will give those cows an opportunity to store up a reserve supply of minerals within their bodies, and this will serve them in good stead when the time comes for them to produce milk.

"Regarding the use of complicated mixtures, or conditioning feeds of various kinds,—I would suggest that they be not used until their value has been proved beyond any doubt. Fish meals are excellent,—for poultry feeding, if they contain the vital organs of the fish. These organs, naturally, are the most potent parts of the fish, so far as vitamin content is concerned.

"Concerning the matter of experimental feeding,—I would say that in some cases good results can be obtained in as short a period as six months time. That is in the matter of food values. In the matter of breeding, however, the time would have to cover from two to three generations. I do not think that the rule of 'three generations' is an absolute necessity in all cases, however."

Rexford W. Titus, former city judge of Binghamton, spoke on "Credit Problems." He said that dealers should use care and judgment in extending credit, and recommended they follow the practice of bankers in considering loans. The banker bases his judgment in summing up a man's ability to pay by considering him as a moral risk, as well as a financial risk, he said. Dividing the two qualities about equally should serve the purpose, said the judge. Judge Titus' address included the following. "Don't's": Don't fail to renew chattel mortgages each year. Don't accept a wife's signature on a conditional contract of sale,—it is valueless without that of her husband.

The speaker said that either partner in a business is liable for the whole amount of an account, and that guarantees of payment of an account, given by a third party, must be in writing and must state the considerations, if they are to be of any value from a legal standpoint.

L. I. Riford of the Beacon Milling Company, spoke at some length on the New York state egg grading law, pointing to its deficiencies and recommending the changes which were incorporated in the resolution adopted. David K. Steenbergh of Milwaukee, Wis., spoke on the value of a consistent program of advertising, and conducted a forum on this subject. He declared that continuity in advertising is more important than the nature of the "copy," and said that the value of a certain type of copy could be proved only by actual results, carefully checked.

W. A. Stannard of Albany, secretary of the Federation, gave a report on results of the radio broadcasting program carried on by the association during the last year. He said that a large number of replies have been received, from farmers who listened in on the talks, and that 485 inquiries and letters were received from the last talk alone. These are still coming in to Federation headquarters at the rate of 60 a day, he said.

Mr. Stannard said radio advertising is probably of little value unless there is a follow up campaign,—which should include literature of various kinds, sent by mail. He asked all members to co-operate in continuing the radio campaign, by contributing \$5 each. One talk is given each month, according to the present program. Answers have been received from points as far distant as Australia, he reported.

The Federation did not take action in the selection of its next meeting place, and is open to suggestions.

GRAIN TRADE PATENTS

Bearing Date of February 19, 1929

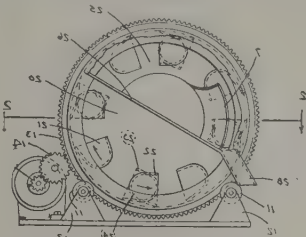
Preservation of flour, grain, grain by-products, or the like. Rene Andre Le Gendre, Paris, France. Filed March 22, 1928, and in France April 2, 1927. No. 1,702,735.

Claim: A grain containing moisture in a proportion not substantially greater than twice that normally present, said moisture having an alkaline reaction within the range pH 7-pH 10.

Bearing Date of February 19, 1929

Mixer. Ralph L. Cook, Mooresville, Ind. Filed March 17, 1928. No. 1,702,931. See cut.

Claim: A mixer for mixing a batch of materials comprising a rotating drum, means for alternately rotating said drum in opposite directions, means for causing the material received at one end of said drum to pass to the other end thereof when rotated in one direction and return to the first end when rotated in the opposite

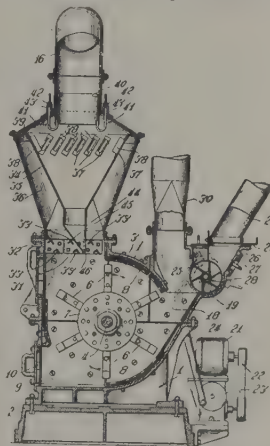


direction, and a plurality of scoops positioned on one end of said mixer for engaging and discharging the material into the mixer when rotated in one direction and engaging and discharging material from the interior thereof when rotated in the opposite direction.

Bearing Date of February 19, 1929

Pulverizing Mill. Joe Crites, Evanston, Ill., assignor to the Raymond Bros. Impact Pulverizer Company, Chicago, Ill., a corporation of Illinois. Filed December 31, 1926. No. 1,702,248. See cut.

Claim: In a pulverizing apparatus, a pulverizing chamber, a pulverizing element therein, the chamber having an outlet, means for withdrawing aid and suspended pulverized material through the outlet, and a plurality of baffle members positioned in staggered

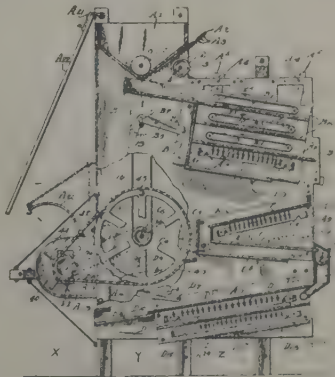


relation at the outlet, the members having concave faces opposed to the direct path of the materials to prevent unpulverized materials being thrown from the chamber by the pulverizing element.

Bearing Date of March 5, 1929

Fanning Mill and Grader. Henry W. Kolstinen, Erwin, S. D. Filed August 6, 1925. No. 1,704,684. See cut.

Claim: In a grain-separating machine, a supporting-frame, an inclined reciprocating sieve-shoe, supported in said frame, a plurality of superimposed sieves in said shoe, a plurality of rotatable endless aprons supported on said frame and extending through the sieve-shoe, each apron being supported above and parallel to a sieve



of said shoe, the lower laps of the endless aprons arranged to travel downwardly in close proximity to the upper surfaces of the sieves, the upper laps delivering grain to the upper ends of said sieves, a sieve cleaning rack carried by the supporting frame and extending through said shoe closely adjacent to the under surface of the lowermost sieve carried by the sieve-shoe.

FIELD SEEDS

CURING of seed corn in commercial quantities in northwestern Minnesota is much more difficult and expensive than in the corn belt. There is always danger of losing a crop by early frosts and even in a normal year curing presents several problems.

As an average of the last four years, Crookston Northwestern Dent saved for seed at the Northwestern station has contained 51 per cent of moisture at picking time. In two of those years it contained over 60 per cent. Corn with that moisture content molds readily if piled, even in small quantities. Further, such corn will be killed for seed by a temperature of 24 degrees Fahrenheit. It should be stored inside with plenty of ventilation to control mold and with facilities for heating in cold weather. In fact, it is usually necessary to apply some heat to control molding. Corn piled six to eight inches high on poultry-wire racks begins to mold even with heat. When the corn dries to approximately 25 per cent moisture, danger from molds is about over, but it will be injured by a temperature of 12 degrees.

The commercial seed-corn dealer in the northern territory must be prepared to house all corn almost as soon as picked. There must be ample room to spread the corn thin and there must be facilities for keeping the temperature above 24 degrees Fahrenheit. This corn must be conveyed to a drier that will reduce the moisture to from 10 to 14 per cent as rapidly as possible. The dealer must face a shrinkage of approximately 50 per cent in ear corn because of moisture, and another shrinkage of 20 per cent in shelling. Culling and grading will still further shrink it.

One plan of solving these difficulties is to use seed of northern varieties grown farther south for one year. Careful comparisons of this seed with seed corn produced at Crookston indicate that the practice is safe and practical. Another method is to grow small acreages for seed under contract to a seed-house fully equipped for curing and drying. Small amounts of corn can often be successfully cured on the ordinary farm with little additional equipment, but the same precautions must be observed. After corn has been dried to a moisture content of from 10 to 14 per cent, it will stand any amount of freezing and may be stored in a smaller place, provided it is kept dry and moderately cool.

CORN-JUDGING STANDARDS CHANGE

Points once emphasized in judging corn have been found of little or no value in selecting seed for commercial use. Ten ears with well filled tips and butts, straight rows, and of definite length and circumference will not necessarily produce similar ears. This is partly because these characters are the result of weather and soil conditions, and partly because the seed ear is the result of cross-pollination. "Like does not beget like" exactly in this crop. Furthermore, long continued close selection tends to reduce vigor.

Certain characters in northern corn, however, indicate value. Immature samples at a show are evidence that the corn was of too late a strain for the season. Maturity indicates (although it does not prove) good seed vitality. An interesting fact brought out by several investigators is that corn that matures also yields best in this district. As maturity is of first importance in the growing of corn in the north, it is given greatest weight in judging. Maturity is evidenced by hard, dry ears, with kernels firm on the cob. Loose, choppy kernels, light weight ears, and spongy cobs are indicative of immaturity.

Ten ears of ripe corn at a show, however, are not evidence in themselves that the entire crop matured. They may have been the only ripe ears selected from bushels of soft corn. They also may have been grown under very favorable conditions not representative of any large area in the district. For this reason type is extremely important. The type will vary from each section of the district and it must rest in the discretion and experience of the judge to encourage later strains in some sections and discriminate against them in others. Nevertheless, certain general type features are required. Ears should be relatively long and slender. Increase in diameter is associated with late maturity, but length of ears seems unrelated to maturity. Smooth kernels are associated with earliness—rough indentations (see illustration) indicate lateness. Too much flintiness in kernels of Dent corn should be discriminated against.

Uniformity of sample is likewise important. The sample should be uniform in size and shape of

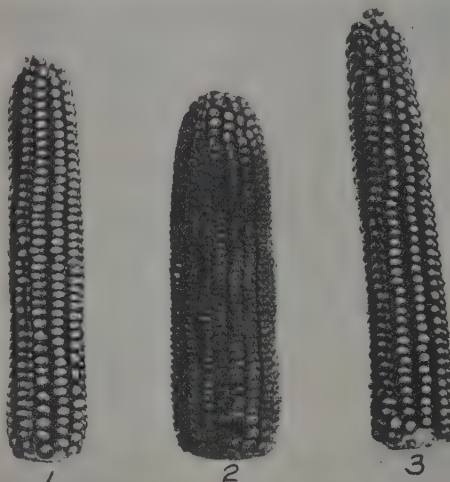
Correct Curing
and Judging of
Seed Corn

By R. S. DUNHAM*

ears, and in size, shape, color, and indentation of kernels. Although a uniform sample may not produce like ears when planted, it shows care in selection and a definite ideal in the mind of the grower. As one rather famous winner at corn shows put it, "A man must grow good corn before he can select a good sample."

OTHER IMPORTANT STANDARDS

The three requirements mentioned have developed in importance as knowledge of northern corn increased. Other standards of importance in judging any corn samples are: (1) Freedom from disease and damage; (a) sample should be free from traces of mold, mice-bitten kernels, and smutted or damaged tips; (b) germs should have bright, healthy appearance; (c) shanks should be broken off clean. Shredded or pink-colored shanks are objectionable. (2) Samples should be typical of the



PHASES OF KERNEL INDENTATION

(1) Desirable Dimple; (2) Too rough for early maturity; (3) Too flinty.

varieties represented. (3) Kernels and cobs should show no traces of cross-pollination by other varieties.

The color in corn may occur in three parts of the kernel. The outer seed-coat or pericarp may be red or colorless. The remainder of the kernel, except the germ, is called the endosperm. The outer layer of the endosperm, or aleurone layer, may be purple, red, or colorless. The endosperm may be white or various shades of yellow.

URGES RICE SEED TESTS

Much of the rice seed received for testing by the seed laboratory of the United States Department of Agriculture, and by the state and co-operative rice association laboratories in the rice-growing states, has germinated very poorly this year, according to E. H. Toole, of the Bureau of Plant Industry. He urges growers to make use of the testing service now provided. The laboratories are equipped to test the value of seed for planting purposes, and foresight in taking advantage of these tests may make material difference in the profits from the crop.

"In growing rice," says Mr. Toole, "as in the production of all crops, the seed to be planted is the factor most easily controlled by the grower. He should know whether he is planting the type of rice most suitable for his conditions, and whether his seed rice contains red rice or other weeds that will lower the value of his crop."

"It is also important to know that the seed to be

planted has the ability to produce vigorous seedlings even under somewhat unfavorable field conditions. Many of the seeds in a lot may be killed by bad conditions during harvesting or during storage. Also, many seeds may not be dead and yet may have been so weakened by weather conditions that they have small chance to develop into plants even under favorable conditions.

"When a germination test shows that more than 90 out of each 100 seeds of the sample produce vigorous seedlings, that lot of seed has a much better chance to give a uniform full stand in the field than a sample with many dead and probably also many weakened seeds. It pays to have all seed rice tested for germination before planting. It pays to plant rice free of weed seeds and red rice, and of high germination test. Otherwise it is too much to expect a good stand of vigorous rice."

In submitting samples for test it is well to send a half pound of seed. The samples may be sent to Seed Laboratory, Bureau of Plant Industry, United States Department of Agriculture, Washington, D. C., or to one of the United States co-operative seed laboratories located at Columbia, Mo., Lafayette, Ind., Corvallis, Ore., or Sacramento, California.

SPRING BRINGS BRISK SEED TRADE TO
INDIANA—OTHER HOOSIER NEWS

By W. B. CARLETON

With the coming of spring weather, both wholesale and retail seed dealers in Indiana report a marked improvement in trade and most of them are of the opinion that trade is going to be rather brisk now until the summer months set in. Things were rather slow during January and February, because of the intense cold weather. From various parts of Indiana are coming reports of a real shortage of seed corn and many farm agents are doing all they can to relieve the situation.

Charging that terms of the Indiana seed law were violated recently in the sale of 4,500 pounds of Red Clover seed to Cyrus Carmony, retail seed dealer at Shelbyville, Ind., an affidavit was entered in the Shelby Circuit Court against a wholesale dealer of seeds and feeds in this state. Although the law has been in force for the past seven years, this is the first court action in Shelby County for alleged violation. The affidavit was filed by Sumner Terry, prosecuting attorney of Shelby county, on complaint of Otis S. Roberts, chief inspector of fertilizer, seeds and feeds for the agricultural experiment station at Lafayette, Ind. Mr. Roberts signed the affidavit after an analysis of the seed bought by Mr. Carmony showed that all or part of the seed had been grown in the state of Oregon, whereas the label on the seed at the time of the purchase by Mr. Carmony, gave the information that it was grown in Ohio. Sale of Oregon seed is not barred in Indiana, but experiments have shown that it is not adapted to Indiana growth and is subject to winter kill. For that reason all Oregon seed sold in Indiana must bear the label showing the source of its production.

Wholesale and retail seed dealers of Indiana and Illinois are interested in the recent announcement of the United States Government to the effect that a survey of the Wabash River is to be made with a view of formulating plans for flood control.

Grain and seed men along the Chicago and Eastern Illinois Railroad in Indiana and Illinois, are interested in the announcement that the Purdue University soil testing train will pull out on March 19.

Twenty-five per cent of the field and crib selected corn recently tested by A. V. McCracken, vocational teacher for the Decatur Corn Growers' Association at Greensburg, Ind., was found to be unsatisfactory for seed because of root rot and dead ears.

Paul Sturm, of Dana, Ind., has been elected county agricultural agent for Vermillion County, Ind., for another year. A. C. Nicholson has been re-appointed county agent of Dubois County, Ind. A. S. Carter was re-elected county agent of Johnson County, Ind.

A seed school was held last month at Franklin, Ind., which was well attended by seed dealers and farmers.

In an address given recently during the agricultural conference at Purdue University, H. R. Kraybill, state chemist and seed commissioner of Indiana, warned farmers against purchasing so-called "bargain" seed advertised by certain mail order houses. The seed business is strictly competitive, it was pointed out, and when seed is offered at fig-

(Continued on Page 563)

* Author of "On The Corn Frontier," Special Bulletin No. 120, Northwest Experiment Station.



ELEVATOR AND GRAIN NEWS

MINNESOTA AND WISCONSIN

The O. & N. Lumber Company has built a new elevator at Curtiss, Wis.

The Farmers Grain & Coal Company, Monticello, Minn., has installed a Monarch Corn Cutter in its plant.

A number of repairs have been made by the Farmers Elevator Company, located at Breckenridge, Minn.

A \$10,000 addition has been added to the Hutchinson, Minn., plant of the Pacific Grain Company of Minneapolis.

The Cokato (Minn.) Grain & Market Company has bought the Equity Elevator and has installed a feed grinder.

An additional story is being added to the Baker Arcade, Minneapolis, Minn., to house the grain and other departments of the Archer-Daniels-Midland Company. The new addition will be completed by April 1.

IOWA

R. B. Anderson is selling his elevator and milling interests at Hedrick.

The Farmers Co-operative Association has been organized at Odebolt.

The Hynes Elevator at Wightman (Lohrville p. o.) has installed new equipment.

A branch of the Pletch Grain Company, of Algona, has been opened at Ottumwa.

The Farmers Co-operative Company has bought the M. H. Spurgen Elevator at Correctionville.

E. E. McFerrin has bought the elevator and lumber yard of Nye-Jenks Grain Company at Modale.

Charles W. Norton has purchased the elevator at Wilton Junction, which was formerly operated by Herman Jipp.

The elevator at Scranton, operated by S. Stewart, has recently added to its plant a 20-ton self-registering Fairbanks-Morse Truck Scale.

The Rockwell (Iowa) Farmers Co-operative Society voted this month to dispose of its store so that it might pay withdrawing stockholders; and to raise \$30,000 for the operation of its grain elevator property.

ILLINOIS

The Stanford (Ill.) Grain Company will build a new office building.

E. Cockrell & Sons have closed out their grain business at Jerseyville.

V. C. Brown contemplates the erection of a small elevator and mill at Champaign.

The Burnside (Ill.) Elevator & Mill Company, recently formed, is now operating.

Roscoe Rockwood & Co. have succeeded the Bailey-Moore Grain Company, located at Gibson City.

Electric motors will shortly replace gasoline engines in the elevator of the Merna (Ill.) Grain Company.

Electric motor power will shortly be installed in the plant of the Bonfield (Ill.) Grain & Lumber Company.

The Rossville (Ill.) Grain Company has purchased the properties of the Heaton Farmers Grain Company.

A Fairbanks-Morse scale has been installed in the elevator of the Meredosia (Ill.) Farmers Grain Company.

The Burlington Elevator Company at Peoria has filed application to issue immediately \$60,000 of preferred stock.

Hart C. Froncouer has discontinued his grain business at North Hooper (Beaverville p. o.). He has moved to Kankakee.

Rich & Blankenbaker, of Sidney, are now established in their new office which replaces the one recently destroyed by fire.

The Burton Grain, Coal & Lumber Company, Burtonview (Lincoln p. o.) will install electric power in place of its gasoline engines which are being discarded.

The American Milling Company, of Peoria, has bought the Mathis grain elevator at Morton. This property has been in the Mathis family for the past 50 years. Edward Hirstein, operator of the elevator, will continue to run it for the new owners.

The Decatur (Ill.) Grain & Elevator Company has been incorporated to store grain and merchandise. Directors are Charles L. Leiss, James H. Cloney and John W. Hook.

The Farmers Grain Company at Del Rey has moved into the store and house which it recently bought. A Fairbanks 10-ton Scale will be installed and the elevators equipped with roller bearings.

A warehouse and a new office building will be built this spring by the Ocoya (Pontiac, Ill. p. o.), (Ill.) Co-operative Grain Company. A concrete pit and a new boot have recently been added to the elevator.

The American Milling Company will construct at Peoria additional storage of 500,000 bushels capacity to store soy beans. This structure will be near plant No. 1 and will treble the company's soy bean storage capacity.

The Kenney Elevator Company, which operates elevators at Kenney and Jenkins Station, and Lukensbill & McBride, who operate elevators at Kenney and Midland City, have merged and are now known as the Kenney Elevator Company.

The Blandinsville (Ill.) Farmers Elevator Company has made several improvements in its plant, including the remodeling of one elevator, and the repairing of another elevator and warehouse; also a new office and a new addition to its mill. Recent installations include a truck lift and a 10-ton Fairbanks-Morse Scale; a one-ton truck has been added to the equipment.

EASTERN

The Sheffield Elevator Company, Buffalo, N. Y., has enlarged its offices to accommodate its coarse grain department, newly opened.

WESTERN

The Globe Grain & Milling Company has opened an office in Somerton, Ariz.

The Seattle Grain Company will erect a bulk grain elevator at Sprague, Wash.

Steel storage of 20,000-bushels capacity will be built at Lamanda Park, Calif., by the Ambler Mill & Grain Company.

The Hansen & Thomas Elevator Company is operating its new \$50,000 grain elevator and mill at Spanish Fork, Utah.

The Imperial Elevator Company, Frazer, Mont., has added to its equipment a 10-horsepower Fairbanks-Morse Engine.

E. J. Guenther plans the erection of an elevator this spring at Coulee, Wash. The construction will be of concrete or of lumber with protective metal covering.

Plans and specifications are being drafted for the grain elevator for the port of Tacoma, Wash. A bond issue of \$500,000 was recently approved by Pierce County voters for construction work on this elevator.

Contract has been let by General Mills Inc., to Barnett & Record Company, Minneapolis, Minn., for the construction of a 1,000,000-bushel elevator at Great Falls, Mont. The cost is estimated at \$350,000.

The American Maize Products Company, a Maine corporation capitalized at \$4,000,000, has been incorporated to transact business in Butte, Mont. It will deal in grains. Fred J. McQueeney is the Montana representative.

The Vollmer-Clearwater Company of Fenn, Idaho, is remodeling a sack grain warehouse at one of its branches, to permit of bulk handling of grain. New machinery will be installed and the building put in condition to handle bulk grain during this coming season.

Arrangements are pending, it is reported, for the merger of the F. M. Martin Grain & Milling Company, Cheney, Wash., and the Montana Flour Company, Great Falls, Mont.; if consummated, it will involve a \$4,000,000 deal. The Montana Flour Company has 47 elevators and four mills located in the West.

Work will start this month, it is reported, on the erection of six new concrete grain bins of 200,000-bushels capacity for the Union Pacific grain terminal at Portland, Ore. Approximate cost of the new structure is \$100,000. The plant, formerly the Portland Flouring Mills, is leased by Kerr, Giff-

ord & Co., who will install equipment costing \$25,000. With the completion of this elevator, for use next November, the company will have a total storage capacity of 1,200,000 bushels.

The Worley (Idaho) Union has been incorporated with a capital stock of \$25,000 to buy, ship, sell and handle grain, hay, feed and machinery. Incorporators are Hans Johnson, William Schultz, Noah Fulton, Fritz Magnuson and Hans A. Hansen.

As soon as the ground is in condition, a new 30,000-bushel elevator will be started at Turner, Mont., a new town on the Saco branch. The owners also operate the Farmers elevator at Harlem. The new elevator will be equipped with a dump, automatic scale, double distributor and a 15-ton dump scale.

SOUTHERN AND SOUTHWESTERN

The Cooper Grain Company, Taylor, Texas, is building a warehouse.

R. E. Harrington will build an elevator this spring at Chamberlain (Dalhart p. o.), Texas.

The Wenderoth Grain Company, Fort Smith, Ark., has taken over the grain elevator of E. Taylor.

Benjamin F. Smith and O. J. May have formed the Ben. F. Smith Grain Company which will operate at Plainview, Texas.

Clarence Wilkins, who has operated the Wilkins Grain Company at Fort Worth, Texas, for the past two years, is closing up his business.

Bernard Edwards and associates, new owners of the Christian County Mills, Inc., Hopkinsville, Ky., are erecting additional storage for their plant.

The Hacker elevator at Medford, Okla., which recently burned, will be rebuilt. The new elevator will cost about \$8,000 and have capacity of 10,000 bushels.

The Goree (Texas) Grain Elevator has made several improvements in its plant. Some of the old buildings have been torn down and new ones erected.

The General Grain Company, Fort Worth, Texas, has been incorporated with a capital stock of \$1,000. Incorporators are J. M. Aura, Sidney Oates, A. Farris, Jr.

Contract has been let by the Farmers Grain Company, Tulia, Texas, for the construction of a 135,000-bushel concrete and steel elevator. Estimated cost is \$60,000.

A new organization, the Attala Milling & Produce Company, has been formed at Kosciusko, Miss., to handle grain, grain products and produce and manufacture mixed feeds.

A 3,000-bushel elevator has been built at Perryton, Texas, by the J. M. North Grain Company. A larger elevator will be built as soon as crop prospects make it possible.

The wheat growers of Kingfisher, Okla., are forming a new company to take over the old Zalabak elevator at that place, which is now being operated as the Binkley Grain Company.

A new elevator is being erected at Pine Bluff, Ark., by the Riley Feed Manufacturing Company. New machinery costing \$12,000 has been added to the present equipment of the plant.

The Pool Elevator Corporation, a subsidiary of the Oklahoma Wheat Growers Association, has leased grain elevators at Byron and Helena. They plan to lease 60 elevators in the wheat growing sections of Oklahoma.

General Mills, Inc., Minneapolis, Minn., has awarded contracts for the erection of a 500,000-bushel elevator, warehouse and office building for the Oklahoma City (Okla.) Mill and Elevator Company. It will be ready in time for the new crop.

A 200,000-bushel elevator, of reinforced concrete construction, is one of the building projects planned by the Universal Mills, Fort Worth, Texas. Contract for building and machinery for the new structures will be let shortly. The new plant will be ready for operation in October, according to advice from the company.

The merger of three companies resulting in a \$1,000,000 corporation, known as the Globe Fico Manufacturing Company, of El Paso, Texas, is announced by William E. Keller, of Los Angeles, president. The companies joining the merger are

the El Paso Grain & Milling Company, the Globe Ice & Cold Storage Company, and the Globe-El Paso Cotton Oil Company. Mr. and Mrs. Keller own the majority of the stock.

The Oklahoma Wheat Growers' Association has bought the John Dean elevator at Kildare, Okla., and will take possession in April. The association plans a number of improvements, including the remodeling of the building and the installation of automatic wagon dumps and compressed air scales.

The General Grain Company, with headquarters in Oklahoma City, Okla., has been formed by General Mills, Inc., to buy all the grain used by the units of that company in Oklahoma, Buffalo, Chicago, Minneapolis, Kansas City and Wichita. Karl E. Humphrey is president of the new grain company.

Construction has started on a 40,000 bushel elevator at Hart, Tex., which will be completed in time for the coming crop. John Elliott, veteran grain man, and D. M. Cogsdell of Hart, are owners. Modern loading machinery will be installed in the new elevator. Hart is a new town on the Fort Worth & Denver Railroad between Plainview and Dimmitt.

Major General T. Q. Ashburn, head of the Inland Waterways Corporation reports that elevator projects in connection with the Inland Waterway System are pending at Memphis, Tenn., and Kansas City, Mo. Minneapolis millers and capitalists are said to be interested in the Memphis project. General Ashburn is also in touch with interests promoting terminal storage at Jefferson City and Booneville, Mo., and Peoria, Ill.

OHIO AND MICHIGAN

H. C. Sharp & Co., have installed a corn cutter in their plant at Liberty Center, Ohio.

The Farmers Elevator at Stanton, Mich., was recently robbed of \$185 worth of clover seed.

A grader and corn cutter have been installed by Craig's Elevator & Coal Yard, West Liberty, Ohio.

A corn cutter and grader have been added to the equipment of the Uniopolis (Ohio) Grain Company plant.

A sheller and other equipment have been installed in the Ft. Recovery (Ohio) Equity Exchange.

A 20-horsepower electric motor has been added to the equipment of the Riverdale (Mich.) Elevator Company.

The Ney (Ohio) Co-operative Company has added a self-contained electro magnetic separator to its equipment.

G. C. Heist has bought an interest in the Garman Grain Company, Delphos, Ohio, and has taken charge of its management.

J. P. Sommer, Kidron (Apple Creek p. o.), Ohio, has improved his plant with a corn sheller, elevators and other equipment.

O. M. Clark, of Cable, Ohio, has been operating since March 1 the elevator at North Lewisburg, which he recently purchased.

The Michigan Bean Company, Vestaburg, Mich., has improved its plant with three Fairbanks-Morse Motors of two, 7½ and five-horsepower.

The Tyler Grain Company, Wooster, Ohio, has bought the plant of the Lodi Milling Company which it will use as a storage elevator.

The Valley City Milling Company recently purchased the Lockwood elevator at Portland, Mich., which it is using for additional warehouse capacity.

Improvements consisting of an elevator and conveying equipment have been installed by the Pontius Coal & Grain Company, located at Orrville, Ohio.

The Loudonville Mills are now operating the elevator of the Jeromesville (Ohio) Farmers Equity Company which they recently purchased. A large crusher and grinder have been installed in the elevator.

The new elevator recently built for Christian Breisch & Co., Oakley, Mich., has roller bearings on the main line shaft and ball bearings on the elevator head shaft.

Additional motors of two to five-horsepower each have been added to the plant of the Breckenridge (Mich.) Farmers Elevator Company. The motors are Fairbanks-Morse self-ventilated, ball bearing, with a modern automatic controller across the line starters.

Stockholders recently voted to mortgage the Farm Bureau Elevator at Woodland, Mich., for \$2,000 to take care of outstanding indebtedness, and to lease it for five years, at \$1,200 a year, to the State Farm Bureau.

The Ohio Grain Company, of Milford Center, reports an extensive remodeling and re-equipping of several of its properties located at various points in the state. The headquarters plant at Milford Center has been remodeled, while motors and other equipment have been installed at Irwin, Woostock, and Mechanicsburg, Ohio.

The grain elevator at Peterson's Crossing, three miles east of Ada, Ohio, has been bought by Clem Patterson who will operate it in connection with his seed house under the name of the Patterson Seed & Grain Company. F. S. Swearingen, Springfield, and Albert J. Gross, Troy, who bought the elevator recently from the receiver gave up their project and sold out to Mr. Patterson.

The elevator of Christian Breisch & Company, De Witt, Mich., has been remodeled and anti-friction bearings have been used on the new shafting. A ball bearing crusher-sheller and a ball bearing feed mill have been installed as part of the new elevator equipment.

THE DAKOTAS

The Schult Grain Company, Falkirk, N. D., plans to rebuild its elevator which recently burned.

The elevator of the J. J. Harrington estate at Carthage, S. D., has been sold to W. C. O'Brien.

The Winner (S. D.) Farmers Exchange has installed a new grain cleaner and a 10-bushel automatic scale.

A 15,000-bushel elevator has been built by the Tri-State Milling Company which is located at Scenic, S. D.

Additional storage of 100,000 bushel capacity is being considered by the Farmers Co-operative Elevator Company, Watford, N. D.

The Lemmon (S. D.) Equity Exchange has added to its equipment two worm gear drives, a double distributor and a six-bushel automatic scale.

The Farmers Elevator Company has been incorporated at Letcher, S. D., with a capital stock of \$14,850. Incorporators are A. H. Hodva, M. G. Stekel, William Ferguson and M. P. Bates.

The Atlas Elevator Company, Gorman, S. D., will start the erection of a new elevator as soon as the frost is out of the ground. This will replace the one which recently burned and will be ready in time for the new crop according to the plans of the management.

The Mina (S. D.) Farmers Elevator Company will start work the last of March on a new, modern 45,000-bushel elevator. A warehouse and coal shed will also be built. The elevator will be equipped with a grain cleaner, flax cleaner, dump, automatic scale, and double distributor spouts on all legs with all steel spouting.

MISSOURI, KANSAS AND NEBRASKA

Wolcott & Lincoln, Inc., have closed their branch at Pratt, Kan.

The Farmers Elevator Company has been organized at Mullen, Neb.

The Haddam (Kan.) Elevator Company has installed new electrical equipment.

The Dean Grain Company has installed an electric truck lift in its plant at Agra, Kan.

C. W. Hawk contemplates the erection this spring of a 16,000-bushel elevator at Woods (Liberal p. o.), Kan.

A Mr. Vancleve, of Wilcox, has bought the Uptide elevator and the J. W. Anderson elevator at Funk, Neb.

M. F. Arnold is building a new elevator and a new feed mill at Butler, Mo. His plant recently burned.

The Mill Elevator Company at Garfield, Kan., is to be reopened with A. T. Tew as the new plant manager.

The Channon Grain Company, Edgar, Neb., has been purchased by E. F. Hart, who will take over its operation.

A consolidation of the Farmers Exchange and the Farmers Elevator of Jasper, Mo., will be voted on April 16.

The second unit of the Illinois Central Elevator at Omaha, Neb., is being completed at a cost of over \$500,000.

The Garnett Grain Company has leased the elevator at Grant City, Mo. G. W. Black is the elevator manager.

The Farmers Co-operative Union, Brownell, Kan., has been taken over by the Robinson Milling Company of Salina.

The Roseland (Neb.) Grain & Supply Company will construct a warehouse for the storage of flour and mill feeds.

The Cole elevator and mill at Chetopa, Kan., were sold on a judge's order, to satisfy a \$6,000 mortgage, to J. M. Michels.

The elevator of the Farmers Co-operative Mercantile Company, Marquette, Kan., has been leased by Henning Dahlberg.

Stull Bros. Grain Company, Brownell, Kan., will increase the capacity of its elevator from 2,000 bushels to 5,000 bushels this spring.

The Burlington Elevator Company will erect in Omaha, Neb., a 500,000-bushel elevator of reinforced concrete. Jones-Hettelsater Construction Company has the contract for construction. The elevator

will be completed in time for the handling of the new crop.

A new elevator is being erected at Hastings, Neb., by the Schultz-Gruis Grain Company.

The Wright Leet Grain Company, Lincoln, Neb., has been incorporated with a capital stock of \$65,000. J. E. Wright is president.

The Farmers Elevator Company is building a 30,000-bushel elevator at Beloit, Kan., which will be ready for operation by June.

A 20-horsepower electric motor has supplanted the gasoline engine in the elevator of the Breed Milling Company, Garden City, Mo.

The Missouri Farmers Association plans the erection of a feed mill and an elevator at Springfield, Mo., at an approximate cost of \$100,000.

Robbers recently blew open the safe of the Farmers Elevator Company at Bunceton, Mo. Checks and cash amounting to about \$150 were taken.

The Valley Lumber Company, Superior, Neb., is tearing down the old Nye, Schneider, Fowler Company's elevator and building a permanent coal shed.

A 20-horsepower Fairbanks-Morse Engine has been added to the equipment of the Farmers Grain & Supply Company at Grays (Arcadia p. o.), Kan.

A cleaner for the grading of grains and cleaning of seeds has been installed in the plant of the Farmers Co-operative Elevator Company, Manley, Neb.

The Malden (Mo.) Grain Company and the L. K. Ashcroft Company, have consolidated and are operating under the name of the Malden Grain Company.

The Hine Grain Company has been organized at Sidney, Neb., by B. B. Hine. Mr. Hine was with the Nebraska Consolidated Grain Company for 25 years.

The three-story warehouse of the Elkhart (Kan.) Mill & Grain Company is nearing completion. Total cost of building and machinery will approximate \$15,000.

Work will start at once, it is reported, on a 130,000-bushel elevator for the Farmers Equity Exchange, Copeland, Kan. Estimated cost is around \$50,000.

David Lorenz has become manager of the Shellabarger Terminal Elevator Company, Salina, Kan. He formerly managed the country houses of that company.

Harry Hamilton is superintendent of the Grain Belt Elevator Company at Hutchinson, Kan. He was formerly manager of the Equity Exchange Company.

The Home Grain Company of Wichita, Kan., has leased the plant of the Thomas Ryan Grain Company at Brownell, and will take possession in June of this year.

Plans have been submitted for the erection of an elevator of 125,000 to 150,000-bushel capacity for the Nebraska Consolidated Milling Company, Grand Island, Neb.

The Burlington Elevator Company, Omaha, Neb., has been incorporated with a capital stock of \$200,000. Incorporators are H. W. Haaker, D. Small and W. McEathren.

An elevator head house is one of the building projects of the Morrow Milling Company, Carthage, Mo. A 100-ton mixed feed unit, a flour mill and a corn meal plant are also contemplated.

A 2,000,000-bushel elevator with head house will be erected at Wichita, Kan., by the Pillsbury Flour Mills Company. Approximate cost is \$700,000. Contract has been let to Barnett & Record Company of Minneapolis, Minn.

The new 150,000-bushel elevator now under construction at McPherson, Kan., for the Wall-Rogalsky Milling Company, is expected to be ready for use by April 15. Jones-Hettelsater Construction Company is doing the construction work.

The Donahue-Stratton Company, which operates in Milwaukee and Chicago, has leased the 1,000,000-bushel Union Terminal elevator at St. Joseph, Mo. The company is now operating eight elevators with a total capacity of 10,000,000 bushels.

The Farmers Elevator & Exchange Company, Palmyra, Mo., has voted to increase its capital stock from \$15,000 to \$50,000. The plants at Palmyra and Hannibal will be improved with additional equipment, including the feed departments.

Storage tanks of 300,000 bushels' capacity will be erected at Salina, Kan., by the Robinson Milling Company. Contract has been let for construction and work will start as soon as the piling is finished. With the completion of this new structure the company will have a total storage capacity of 650,000 bushels.

Contract has been let by the Western Star Mill Company, Salina, Kan., for the construction of eight concrete storage tanks of 250,000 bushels' capacity. These will replace their old wooden elevator of 25,000 bushels' capacity. The new addition will give them a total grain storage of 350,000 bushels. Work will start April 1.

The Collinswood Grain Company has taken over the 33,000-bushel grain elevator of D. F. Krehbier, Pretty Prairie, Kan. John McCaffery, present operator, will continue the business for another year.

The old elevator of the Farmers Union Co-operative Elevator Company, Helvey, Neb., which was recently sold at auction, will be dismantled and moved away. The company is operating its new elevator.

INDIANA

Vern Allen and T. O. Halverstadt have bought the Gengnagle & Son elevator at Helmer.

The Hardin Grain Company at Fortville, has changed its name to the Fortville Grain Company.

The Umfried Grain Company, Stevens Station (Newburgh p. o.) will repair its elevator this spring.

The Huntertown Grain & Lumber Company is the new name of the Huntertown Grain Company of Fort Wayne.

Bales & Hess have bought the Mishawaka (Ind.) Grain & Coal Company which they will operate under the same name.

Lightning rods have been placed on the elevator operated by Kraus & Apfelbaum at Inwood. A metal spout has also been installed.

Goodrich Bros. Company has bought the Adamson & Kemper elevator at Redkey, which it will operate as the Redkey Grain Company.

The State Line Grain Company, newly organized, is operating the elevator at State Line and also the elevator at Allison Station. Victor Current is manager.

Iglehart Bros., milling company controlled by the Postum Company of Battle Creek, Mich., has let contract to James Stewart Corporation for the construction of a 500,000-bushel elevator at Vincennes.

Newton E. Williams has bought the grain elevator at London, formerly operated by M. D. Gould of Fairland, and Harvey Snyder of Fountaintown. Mr. Williams has taken charge and is operating under the name of the Williams Grain Company.

To purchase the title of certain real estate in connection with grain elevator projects, the Indianapolis Public Elevator Realty Company has been incorporated with a capital stock of \$75,000. Incorporators are S. M. Allen, Jr., Joe W. Scales, and Marvin Scales.

The elevator of the Hillsburg (Ind.) Grain Company has been sold to E. B. McCorkle who assumed managership March 1. Feed and fuel departments have been added and the name changed to the Hills-

burg Grain & Coal Company. A modern feed grinder has been installed.

The Clinton County Farmers Co-operative Company at Frankfort, has installed a sheller with roller bearings and a basement line shaft set in anti-friction bearings.

CANADA

A \$3,000,000 grain elevator is to be built at Windsor, Ont.

L. C. Irwin is superintendent of the Searle Terminal Elevator at Fort William, Ont., recently completed.

Contract has been let for the construction of a 1,000,000-bushel elevator for the Goderich (Ont.) Elevator & Transit Company.

The Ellison Milling & Elevator Company, Ltd., Calgary, Alta., has erected a two-story warehouse. The company is also building a warehouse at Vancouver this spring.

D. A. Kane has been appointed general superintendent of the Manitoba pool elevators. He was formerly manager of the elevators of the McLaughlin Grain Company.

The Alberta Wheat Pool, the name by which it is commonly known, has been adopted by resolution as the new name for the Alberta Co-operative Wheat Producers, Ltd.

The Electric Elevator & Grain Company has been incorporated to take over the electric elevator of the Bole Grain Company, Ft. William, Ont. A new issue of 31,500 shares of stock is announced.

The West Coast Grain Company, Ltd., has been recently organized at Calgary, Alta. It will purchase and operate the terminal elevator built by the Calgary Terminal Grain Company. C. F. Freed will be manager.

Contract has been let for the building of the wharf and foundation of the terminal elevator at Prescott, Ont. The cost is about \$500,000. This will be used for the handling of grain when the new Welland Canal is finished.

Cecil Rice-Jones, vice president and general manager of the United Grain Growers, Ltd., Victoria, B. C., has resigned after many years of service to enter the financial business. R. S. Law, of Winnipeg, secretary of the U. G. G. Securities, Ltd., will succeed Mr. Rice-Jones.

Government loans of \$10,000,000 will be made for the extension of grain facilities at Vancouver, B. C., it is reported. Harbor Board's elevators No. 1 and No. 2 will have an additional capacity of 4,000,000 or 5,000,000 bushels, and a new pier, approximating \$6,000,000, will probably be built.

ERWIN.—Marion W. Erwin, of the Moore & Erwin Company, flour and feed dealers, Black Rock, Ark., was found dead in his warehouse. He was 46 years old. His widow, three children, a brother and four sisters survive him.

FOTTLER.—John Fottler, 85, retired seed man, died recently. Mr. Fottler was formerly head of the H. E. Fiske Seed Company, now known as the Perry Seed Company, Dorchester, Mass.

GALAGAN.—A. J. Galagan, manager for 17 years of the Farmers Elevator Company at Ledyard, Iowa, died recently, following a year's illness.

GEORGE.—Edward B. George, well known grain merchant of Richmond, Va., died recently. His widow, three sons and two brothers survive him.

GILPIN.—Samuel B. Gilpin, grain dealer; died at his home in Philadelphia, Pa., at the age of 79 years.

HESS.—George H. Hess, aged 66, president of the Hess Warming & Ventilating Company, Chicago, died February 21 at his home in La Grange, Ill. He died of a heart attack. He invented the well known Hess Grain Drier and took out many other patents.

HILL.—Charles L. Hill, who operated a chain of grain, lumber and coal concerns in Freeport, Ill., and surrounding territory, died recently. He was 64 years old.

HOLCOMB.—Cassius Holcomb, operator of a grain elevator at Oakley, Ill., for many years, died. He was found in his garage, and death was evidently due to gas fumes from the exhaust of his automobile.

HOLLIDAY.—John Holliday, interested in an elevator at Converse, killed himself at Greentown, Ind. He was 68 years old. His widow and a daughter survive him.

JOYCE.—Frank Joyce, grain man, known to the trade in northern Iowa and southern Minnesota, died at his home in Eagle Grove, Iowa.

KING.—Ralph W. King, Sr., pioneer Chicago grain dealer and board of trade operator, died recently at the age of 56. For 25 years he operated the R. W. King Hay, Grain & Feed Company. His widow and four children survive him.

KLOSSNER.—William Klossner, builder and operator of the first flour and feed mill at Winthrop, Minn., died recently at the age of 67. After operating his mill for some years, he engaged in the grain business for 28 years as active buyer at Winthrop. His widow and five children survive him.

LADISH.—Erick H. Ladish, director of the Ladish-Stoppenbach Company (feed), Milwaukee, died at Sacred Heart Sanitarium following a long illness. Mr. Ladish lived in Chicago for the past 34 years.

LE GRAND.—A. L. Le Grand, manager of the Manfred (N. D.) Co-operative Grain Company, died recently.

LEWIS.—Wallace W. Lewis, an employee of the Sterling Elevator, Minneapolis, Minn., was killed when he fell into a bin on February 11. His widow and two daughters survive him. Mr. Lewis was 62 years old.

MANNING.—Thos. J. Manning, Federal grain supervisor at Baltimore, Md., for the past 11 years, died suddenly. He was buried at his former home, Charlestown, W. Va.

MCADAM.—George McAdam, formerly in the grain elevator business at Quincy, Ill., died at the age of 67 years. Mr. McAdam had lived for the past ten years in Hollywood, Calif.

MCDONALD.—William Daniel McDonald, aged 68, grain dealer at Kokato, Howard Lake and Annandale, Minn., died. His widow and three children survive him.

MEEK.—Ralph C. Meek died at Jamaica, L. I., aged 58 years. Mr. Meek was with the New York Produce Exchange for 46 years, entering their employ as a messenger boy. At the time of his death he was Chicago quotation clerk and grain registrar of the Exchange.

PECK.—E. F. Peck, considered the oldest grain man in the state of Nebraska, both in years and in service, died recently. He was manager of the Farmers Union Co-operative Association at Cedar Bluffs, Neb.

PHILLIPS.—Sherman H. Phillips, of the Garret & Antell Elevator, Princeton, Ind., died at the age of 62 years.

REUTER.—C. Reuter, head of the Reuter Seed Company, New Orleans, La., died recently at the age of 68. Mr. Reuter was one of the pioneer seedsmen of New Orleans. Four sons survive him.

ROLLINS.—James H. Rollins, well known to the New York grain, hay and feed trade, died March 3 at the age of 66. He was with J. & R. Rollins, founded by his father, the late James Rollins.

STEVENS.—T. M. Stevens, president of the Imperial Milling & Grain Company, Vancouver, B. C., died at the age of 62.

SCHMIDT.—John Schmidt, former wheat sales-

OBITUARY

AGGELER.—Edward A. Aggeler, of the Aggeler & Musser Seed Company, Los Angeles, Calif., died of a heart attack while on a business trip to San Bernardino. He was 65 years old.

ALLHOFF.—Franz A. Allhoff, of Allhoff Bros., grain and feed dealers, St. Louis, Mo., died February 25. His widow and 10 children survive him.

ANDERSON.—Andrew Edward Anderson, aged 77, retired grain man, of Minneapolis, Minn., died February 20. Mr. Anderson was born in Sweden and came to this country when a child. His widow and five children survive him.

BALL.—Bert Ball, formerly advertising manager of the St. Louis Merchants' Exchange and later connected with the Chicago Board of Trade, died February 7. He was one of the pioneers in organized crop improvement effort.

BEATTIE.—James Beattie, vice-president of the Whaley Mill & Elevator Company and pioneer of Gainesville, Texas, died at the age of 76 years. His widow and four children survive him.

BERG.—Oscar S. Berg, chief engineer for the State Mill & Elevator Company, Grand Forks, N. D., died of diabetes on February 19. He was 36 years old. His widow and two children survive him.

BOYNTON.—E. R. Boynton, of the E. R. Boynton Hay Company, Kansas City, Mo., died of pneumonia at the age of 76. Mr. Boynton sold his business four years ago and retired. He was buried at Platteville, Wis., his former home. His widow and one son survive him.

CLARK.—Joseph Clark, owner, for many years, of a mill and feed store at Perry, Mo., died recently at the age of 65 years.

COLEMAN.—Henry B. Coleman, aged 81, died from a heart attack while on the way to his office. Mr. Coleman had been in the grain and feed business at Chippewa Falls, Wis., for the past 35 years.

DAVENPORT.—Louis Davenport, known to the grain and feed trade in the southwest, died recently in Cincinnati. He was manager for several years of the Greendale Mills, Lawrenceburg, Ind. He was buried at his former home which was in Forrest City, Ark.

DE FOREST.—Laverne Benjamin De Forest, grain dealer in Oneida, Ill., for 30 years, died at the age of 76. He served in the Illinois legislature from 1894 to 1896.

DOLLARD.—Harrison W. Dollard, well known to the Toronto, Ont., grain trade, died while visiting in Chicago, his former home. Mr. Dollard at the time of his death was with Hudson & Co., of Toronto, Ont. He started his grain career with Logan & Bryan of Chicago. Four children, his mother, three sisters and three brothers survive him.

DUNLAP.—Samuel Carey Dunlap, retired grain dealer, died in Los Angeles at the age of 63 years. He was formerly one of the owners of the Phoenix Flour Mills in Arizona. He was active in the grain trade in Los Angeles until two years ago when he retired from business. His widow and one daughter survive him.

DYE.—Thomas H. Dye, connected with grain shipping companies for 40 years, died of pneumonia in Port Costa, Calif., at the age of 54. His widow, a son and a sister survive him.

EATON.—Clark S. Eaton, manager for 20 years of the Farmers Elevator Company, Park River, N. D., died of heart trouble. Mr. Eaton was 59 years old. His widow and three children survive him.

ENGBY.—Andrew E. Engby, aged 62 years, was killed instantly when blown off a scaffold by an explosion of dust while working in an elevator at the feed mill of the Ralston Purina Company, Minneapolis, Minn.

man for Marshall Hall Grain Corporation at St. Louis and St. Joseph, Mo., and later at Kansas City, died recently.

SMITH.—Ed. J. Smith, former manager of the Millington (Ill.) Grain elevator, died in a Peoria hospital, following an operation. Mr. Smith lived for several years in Montana and Idaho.

SPRY.—Carl H. Spry, associated with Spry Bros. Grain Company, Ottumwa, died suddenly. He was 44 years old. His widow, two children, his mother and three sisters survive him.

STEWART.—Samuel B. Stewart, owner of Stewart's Seed Store, Omaha, Neb., died at the age of 70 years. He had a bad fall the day before his death. His widow survives him.

TEMPLE.—William Temple, Jr., president of the Temple-McCoy Grain Company, Texarkana, Ark., died of pneumonia. He was 34 years old.

THOMSON.—Harry W. Thomson, Winnipeg, Man., connected with the N. M. Patterson Grain Company for several years, died recently.

VAN AMBER.—David Van Amber, aged 77, and former grain buyer at Huntley, Welcome and Truman, Minn., died recently at Havre, Mont., while visiting his brother. He was buried at Truman, Minn.

WASHER.—Major S. R. Washer, president for a number of years of the Washer Grain Company, Atchison, Kan., died at the age of 93. In 1875 Mr.

Washer established one of the first grain elevators on the Missouri River, outside of Kansas City and St. Joseph. In 1917 the Washer Grain Company merged with the Atchison Flour Mills Company.

WENSELL.—Paul L. Wensell, vice president of the La Monte (Mo.) Milling & Grain Company, also vice president of the La Monte Chamber of Commerce, died of heart trouble. His widow, Mother, three brothers and four sisters survive him.

WILSON.—Benjamin S. Wilson, president of B. S. Wilson & Company, Chicago, Ill., died February 20. He was a member of the Board of Trade and formerly manager of T. E. Wells & Company. His widow, three children and a sister survive him.

WRIGHT.—Sol Wright, aged 77, well known expert in rice culture, died at his home in Crowley, La., from a heart attack. Mr. Wright lived in Louisiana for 40 years during which time he promoted several varieties of rice in Louisiana, Texas, Arkansas and California. He became internationally known in his line.

YONTZ.—W. H. Yontz, formerly connected with the Tipton (Mo.) Elevator, died at the age of 87. He was a Civil War veteran. Nine children survive him.

ZIERFUSS.—William Zierfuss, manager of the Danvers (Ill.) Farmers Elevator Company, died at his home in Danvers. He was 66 years old.

wheat, was destroyed. The damage is around \$10,000, partially covered by insurance. The office of the elevator escaped.

Elk Horn, Iowa.—The elevator of the Farmers Co-operative Company was totally destroyed. Loss, probably caused by an overheated stove in the office, is \$11,000, partially covered by insurance. Six thousand bushels of grain were destroyed.

Fairdale, Ill.—The Woodard elevator was recently destroyed by fire, entailing a loss of some \$30,000. The explosion occurred while E. E. Woodard, owner, was testing grain. He was severely burned and rushed to a hospital in a serious condition.

Ottosen, Iowa.—A dump in the Farmers Elevator Company fell on Andrew Lovig, an employe, breaking his back and causing other fractures. As Mr. Lovig tapped the supports to loosen the sticking dump, it fell, pinning him between it and the floor for three hours.

Port Arthur, Ont.—Malcolm Graham, employed in the terminal elevator of the United Grain Growers Company, fell 50 feet from the top of a bin where he was working. As the bin had about 10 feet of grain in the bottom of it he suffered from shock and bruises only.

Illinois, Ill.—Fire destroyed the grain elevator at Haines station, two miles west of Illinois. The property was owned by C. R. Lewis of Jacksonville and was leased and operated by A. Maxwell. It was built six years ago at a cost of \$19,000. Fire started at the top of the elevator and only the office part was saved.

Livingston, Texas.—Fire partially destroyed the building and stock of the Livingston Wholesale Grain & Grocery Company. Estimated loss is \$75,000. Rats gnawing at a carload of matches in the storeroom is thought to have started the fire. The building was one-story and of fire proof brick construction, partially covered by insurance.

Carlyle, Ill.—The grain elevator and old mill of the Carlyle Grain & Feed Company burned. Sparks from a passing locomotive may have started the blaze, owners believe. The loss is placed at \$20,000. The plant was insured for \$15,500. Loss paid amounts to \$14,357. A canning company occupied the first three floors of the mill, and the fourth floor, where the fire started, was filled with old flour mill machinery.

Winchester, Idaho.—Fire completely destroyed the elevator and warehouse of McClarin & Hart, four miles northeast of Winchester. The loss is estimated at \$26,000, half of which represents the cost of the buildings and the other half the value of wheat stocks lost. Friction at the top of the elevator where the bucket-belt turns over a pulley started the blaze. W. B. McClarin tried to put out the fire with an extinguisher, and was overcome for a time by the explosions that followed from dust or other causes.

FIRES-CASUALTIES

Vliets, Kan.—The elevator of the Farmers Union Co-operative Association was destroyed by fire recently.

El Monte, Calif.—Fire destroyed the grain warehouse of C. C. Stafford. Loss is estimated at \$40,000.

Fountain, Mich.—Fire destroyed the elevator of the B. F. Brunke & Ryon Grain Company on February 27.

Newport, Mich.—The grain elevator of Burt McKinzie & Son was destroyed by fire, causing a loss of \$35,000.

Haydenville (Madison p. o.), Minn.—The elevator of the Haydenville Grain Company was recently destroyed by fire.

Vulcan, Alta.—The Alberta Pacific elevator was totally destroyed by fire. It contained 40,000 bushels of grain.

Durham, Ont.—The O. S. Hunter steel elevator burned. The loss, estimated at \$80,000, is partially covered by insurance.

Underwood, N. D.—Fire destroyed the Finneman Grain Elevator, causing a loss of \$18,000. P. A. Finneman is manager.

Richmond, Ind.—Fire swept the three-story brick warehouse of Omer G. Whelan, feed and seed dealer, causing a loss of more than \$35,000.

Melissa, Texas.—The grain storage plant of the Melissa Grain Company burned. It contained 14,000 bushels of grain which were destroyed.

Oakwood, Texas.—The plant of the Childress Grain Company was recently destroyed. Estimated loss is \$15,000, partially covered by insurance.

Jackson, Neb.—Fire damaged the Atlas Grain elevator, causing a loss of \$10,000. The elevator is of wood and contained about two carloads of grain.

Briceton, Ohio.—The grain elevator of J. E. Marquardt & Son was destroyed by fire. It contained considerable grain. The loss is covered by insurance.

Minneapolis, Minn.—Fire damaged the Sheffield Elevator Company's plant to the extent of \$50,000 on March 3. The elevator contained grain valued at \$1,500,000.

Nashville, Tenn.—The second floor of C. L. Liggett & Son's grain store recently caved in, tumbling a large quantity of grain into the basement where 1,000 bags of feed were stored.

Hillsboro, N. D.—The plant of the Equity Grain Elevator and Trading Company was damaged by fire, causing a loss of about \$40,000, covered by insurance. John H. Olson is manager.

Silver Park, Sask.—The Standard Elevator and contents recently burned. A. M. W. Leatham, grain buyer for the company, had a narrow escape when the lantern he carried into the pit exploded.

Van Wert, Ohio.—The grain elevator and 5,000 bushels of corn, owned by Ireton Bros. Company, were recently destroyed. The blaze started at the top of the structure. Estimated loss is \$30,000.

Topeka, Kan.—The elevator and mill of Forbes Bros., were destroyed by fire. The loss is estimated

at \$150,000, partially covered by insurance. It is believed that the fire was of incendiary origin, as oiled rags were found burning in the basement. A building of the Hill Milling Company is being used as temporary quarters.

McIndoe Falls, Vt.—The frame warehouse owned by E. E. Clark of Lisbon, New Hampshire, burned. An overheated stove is thought to have caused the fire. Total amount of insurance, \$2,000, was paid.

Catholic Spur, Idaho (Winchester, p. o.).—Elevator and warehouse, properties of Larin & Hart, were burned February 18. Cause of the fire, which caused total destruction of the plant, is unknown. The total loss on the buildings is put at \$13,000, and that on the wheat stored, at \$13,500. Insurance partially covered the loss.

Blackwell, Okla.—The main section of the Ed Jenkins grain elevator, containing 3,700 bushels of

HAY, STRAW AND FEED

A feed store has been opened at Mackinaw, Ill., by Daniel Zehr.

A feed store has been opened at Moberly, Mo., by Guy Brooks.

B. O. Buford has opened a feed and grain store at Sinton, Texas.

Bertram Kuntz has opened a feed and seed store at Ferdinand, Ind.

Heltz & Foss, hay dealers, Chicago, Ill., are discontinuing business.

A feed grinder has been installed by Heid Bros. Inc., El Paso, Texas.

W. R. Borton is operating his new feed business at Macomb, Ill.

The Antwerp (Ohio) Equity Exchange has installed a feed grinder.

A feed grinder has been installed by Spurrier Bros., Marysville, Ohio.

Charles A. Graef has added a feed grinder to his elevator at Troy, Ohio.

The Northern Supply Company has opened a feed store at Cameron, Wis.

The Tyler (Minn.) Co-operative Company has installed a feed grinder.

The Waldo (Ohio) Feed & Supply Company has installed a feed grinder.

Paulson & Son have built an addition to their feed plant at Atla, Iowa.

Conrad Rase and son Clyde of Stella, Neb., will start their hay mill shortly.

S. W. Dutich has become a partner with B. F. Brimberry in his feed business at Grapeland, Texas, now known as Brimberry & Dutich. They will

move shortly into their new building, when they will enlarge their stocks.

A feed and produce store has been opened at Jasper, Mo., by C. N. Hammond.

A. W. Waterman has installed a feed grinder in his plant at Bropton, Minn.

A feed sales room has been added to the Farmers Grain Company, Thawville, Ill.

McCandles & Ladwig have installed a feed grinder in their elevator at Antigo, Wis.

Knopes & Peck have succeeded the feed firm of Baker & Peck at Janesville, Wis.

The Milford (Ind.) Grain & Manufacturing Company has installed a feed grinder.

A feed grinder has been installed in the elevator of J. M. Bromfield, Bay City, Mich.

The Flom (Minn.) Creamery will build a warehouse for the handling of feed, etc.

A feed grinder has been installed by Soderland Bros. Grain Company, Madrid, Iowa.

A feed, flour and coal business has been opened at Hersey, Wis., by Helmer Ellevoid.

The Loudonville (Ohio) Equity Exchange has installed feeders and other equipment.

Frizelle, Eales & Company, Inc., have bought the McFarlane Feed Store, Sebastopol, Calif.

The Mayville (Wis.) Flour, Feed & Seed Company has put a feed grinder in its plant.

Rich & Clark recently opened a business at McMinnville, Tenn., carrying feeds, grain, etc.

The Beroun (Minn.) Produce Company has been incorporated at \$15,000. It will handle feeds, seeds, grain, flour, farm products, etc. Incorporators are

J. W. Chalupsky, A. Vlasak, A. Kacer, L. J. Ouradnik, J. Pavak and Charles Kryzer.

Bruce Bros. Grain Company, Kansas City, Mo., has discontinued its mill feed department.

Howard Worline has bought the grain and hay business of F. A. Weidaw at Delaware, Ohio.

The Rea-Patterson Milling Company Coffeyville, Kan., has installed a feed grinder in its elevator.

A feed grinder has been added to the plant of the Morral (Ohio) Lumber & Elevator Company.

A feed grinder has been installed by the Roberts (Wis.) Elevator Company for commercial grinding.

The Pierce Elevator Company, Union City, Ind., has installed a crusher, elevator and other equipment.

Daniel Vollmer, Anadarko, Okla., has added a new mill house unit to his elevator and feed plant properties.

The Sherman-Magnolia Seed Company has installed a feed grinder in its plant located at Dallas, Texas.

A feed grinder and a batch mixer are being installed by the Graymont (Ill.) Co-operative Association.

The Farmers Grain & Feed Company at Paris, Ohio, has installed a modern feed grinder in its elevator.

A commercial grinding plant has been completed at Gering, Neb., for the Lexington Mill & Elevator Company.

The Detrick Grain & Milling Company, Tippencanoe City, Ohio, has added a feed grinder to its equipment.

A feed grinder has been added to the equipment of the Marathon Elevator Company at Marathon City, Wis.

A brick warehouse and feed plant will be started soon at McKenzie, Tenn., for R. McAdams and Virgil Ellis.

A power feeder has been added to the feed grinder in the plant of Charles F. Naber, located at Alexandria, Ind.

A feed grinder has been added to the local plant of the Shellabarger Mill & Elevator Company at Salina, Kan.

With John H. Dowlen as manager, the Springfield (Tenn.) Feed Company has recently opened for business.

J. L. Slaughter will install a feed grinder in his plant at Markleville, Ind. He will also make other improvements.

A vertical feed mixer has been added to the equipment of the Hinshaw Grain Company at Summitville, Ind.

C. E. Kennedy has purchased the grain and feed store at Anthony, Kan., formerly conducted by F. H. Hamilton.

The Leola (S. D.) Equity Exchange has completed its building to house a new feed grinder which it is installing.

A feed grinder and totally enclosed fan cooled motors have been installed by the Farmers Grain Company, Tolley, N. D.

A feed mixer and other equipment have been installed by the Condit Farmers Co-operative Company, Centerburg, Ohio.

The Oxford (Ind.) Grain Company has bought the Deeds feed mill which it will operate with its grain and feed business.

Albers Bros. Milling Company, San Francisco, Calif., will erect at Portland, Oregon, two tanks for the storage of molasses.

A new fireproof warehouse has been completed at Chickasha, Okla., for the Roy Luster Wholesale Grocery and Feed Company.

A 22 inch Monarch feed grinder with two 20 horsepower motors has been installed in the plant of Leo Eiden, Deer Park, Wis.

H. W. Breitenstein has installed new machinery in his feed mill at Stockton, Wis., and changed from gasoline to electric power.

A feed grinder and totally enclosed fan cooled motors have been added to the equipment of the Sedan (Minn.) Grain Company.

The Springfield (Ohio) Dairy Products Company has improved its plant with a feed grinder, feed mixer and other equipment.

A feed grinder driven by a diesel engine has been placed in the plant of the Fordville (N. D.) Co-operative Marketing Association.

The Mount Olive (Miss.) Flour & Feed Company has sold out its stock and is retiring from business. J. R. and C. S. Reddick were owners.

J. M. & T. O. Gwaltney, Jr., Inc., has been incorporated at \$100,000 to transact business in Norfolk, Va., conducting a general hay, grain and millfeed business.

The Farmers Grain & Coal Company, Mitchell, S. D., has added to its plant a 26 inch Monarch

feed grinder, with two 30 horsepower motors. It has a pneumatic products conveyor and was furnished by Sprout, Waldron Company.

D. W. Gerber is sole owner now of the Kemp-Gerber Company, New Dover, Ohio, formerly known as the Immel Feed & Milling Company.

A 20-inch Monarch Feed Grinder with two 15-horsepower motors has been added to the equipment of H. M. Hendricks, Verndale, Minn.

A 24-inch feed grinder driven by two 25-horsepower totally enclosed fan cooled motors has been installed by A. F. Kuffman at Freeman, S. D.

The Red Chain Feed Company has been incorporated to do business at Harlingen, Texas. Incorporators are J. R. Barry and G. C. Horn.

The Johnson's Blue Ribbon Feed Company has been organized at Sioux City, Iowa, with a capital stock of \$25,000. H. L. Johnson is president.

The Farmers Elevator Company, located at Somonauk, Ill., has purchased a new, improved type feed grinder to use in its feed sideline department.

The Newcomer's Feed Mill has succeeded the Byron (Ill.) Stock Feeding & Manufacturing Company. Paul Newcomer is the new owner.

A. L. Burroughs, Rockford, Neb., expects to erect a warehouse in the near future and handle a full line of feeds. He recently installed a feed grinder.

The Roy Aney Seed & Nursery Company, Minot, N. D., has installed a feed grinder with a 40 horsepower enclosed self-ventilated Fairbanks-Morse motor.

The Auburn (Mich.) Elevator Company has recently installed a magnetic spout to eliminate tramp iron from stock to be ground before it reaches the feed mill.

The Chicago (Ill.) Feed Company, located at 3324 W. 22nd Street, has been incorporated at \$10,000. Incorporators are A. H. Dressel, S. L. Murray and Lee Landwer.

The Farmers Produce Company, located at Burlington, Kan., is enlarging the feed department of its plant, and is providing feed grinding equipment for immediate use.

The Wayne Farmers Supply Company has recently been organized to deal in feeds, seeds, etc., at Applecreek, Ohio. Promoters are George F. Grosjean and Paul Miller.

Arthur L. Claggett, feed and seed dealer at Donna, Texas, has taken over the Exchange Seed & Grain Company of Alamo. He is adding a new stock of feeds, seeds and poultry supplies.

The Curry Coal & Supply Company has succeeded the Curry Coal Company at Bloomington, Ind. Lyle Fowler is the new owner. He will handle feeds, seeds, coal and building materials.

A truck freight warehouse will be erected shortly near the live stock truckers terminal in South Omaha, Neb., announces John A. Nixon of the A. A. Nixon & Co., wholesale feed dealers.

William Welga, Jr., connected for many years with the Gilster Milling Company, has bought the Buena Vista Mill at Chester, Ill., from Henry Gilster

who has been operating a feed store and feed grinding business at the plant. Mr. Welga will continue it as a feed business.

The Arrow Feed Company, 6768 Stony Island Ave., Chicago, has been incorporated with a capital stock of \$20,000. Incorporators are C. Jacob Mendoocha, Frank S. Markey and George Kezios.

The Kay-Dee Feed Company has been incorporated at Sioux City, Iowa, for \$25,000. Incorporators are R. C. Knapp, president; A. W. Lohry, vice president, and Charles Dawson, secretary and treasurer.

The Richmond (Ind.) Feed Milling Company has installed in its new plant, recently opened, a Rosco Ajax Huller. With this they serve their own needs and they will also do a special custom hulling for farmers.

The feed business of the Detweiler Coal Company, Twin Falls, Idaho, has been taken over by the Hayes Hi-Grade Hatchery. The Detweiler company will concentrate on its coal and stoker departments.

The Farmers Feed & Seed Company, recently organized, is operating at Payette, Idaho. N. D. Vail, who has a similar business at Emmett, is owner. Harold Lyon will manage the Payette department of the business.

Patton, Hatcher & Ahearn have filed application for charter to transact a feed and seed business at Nashville, Tenn., capitalized at \$30,000. Incorporators are J. B. Patton, J. F. Ahearn, H. S. Hatcher, John R. Wilson and F. P. Wilson.

The Doggett Grain Company, which recently opened its new grain elevator at Farwell, Texas, is building a structure to house a modern feed mill. The company will do custom grinding as well as grinding its own output for carload shipments.

The Ritter-Bailey Mercantile Company, Black Oak, Ark., has purchased the store of Frank Smith at Caraway, Ark. The Caraway store will be operated as a separate unit and will carry feed and general merchandise. C. J. Hollis will be in charge at Caraway.

The Grenola (Kan.) Mill & Elevator Company has installed a heavy duty feed grinder in its plant. The new equipment will be used almost exclusively on ear corn grinding. A 50-horsepower electric motor furnished power for the new unit on a direct drive. Anti-friction bearings are used throughout all the elevating equipment in connection with the grinder, as well as on grinder itself.

One of the largest recent feed mergers involves the consolidation of the American Milling Company, the Corn Products Company and the Charles M. Cox Company. The latter company, with headquarters in Boston, Mass., also manufactures at Bridge-water, Mass., and at Brattleboro and Montpelier, Vt., and has a chain of feed distributing stores throughout New England. The Corn Products Refining Company is the parent concern in the merger, having purchased the controlling interest in the American Milling Company, which in turn has taken over the business of the Charles M. Cox Company.

FIELD SEEDS

(Continued from Page 558)

ures below the prevailing prices of good reliable seed dealers it probably is inferior seed of low purity and low germination, it was asserted.

The Indiana state seed law is primarily a correct labeling law. It does not aim to tell the purchaser that he must or must not buy a certain type of seed, but it does aim to give him a correct statement of the quality of the seed by requiring the seed to be labeled with state labels which furnish the prospective purchaser with the information necessary to make a proper choice of seed.

Dr. Kraybill pointed out that the Indiana seed law is one of the most stringent of all the state seed laws. During the past year, 15 cases of violation have been called to the attention of prosecuting attorneys. Seven cases resulted in conviction and payments of fines and in eight cases the dealers were warned and the affidavits held pending future behavior.

MILWAUKEE SEED NOTES

By C. O. SKINROOD

Ice and snow covering Wisconsin forbids an accurate estimate of the damage to Clover and Alfalfa. But some reliable statements give the field damage to be from 20 to 25 per cent.

Sustained good buying of seed this month and last together with damage estimates indicate a

good selling season. A large amount of farmer buying out of necessity is expected; and this year's high amount of moisture is inspiring a larger quantity of grass sowing.

Milwaukee seed handlers are finding a smaller supply of high grade, northern grown Red Clover, while supplies of low and middle grades are more plentiful. However, slight change is noticeable in Red Clover prices for the past 30 days, though the trend is naturally firm, indicating a rise at the close of the season's buying. Prices: \$31 to \$34 for medium, \$32 to \$34 for mammoth or bull.

Timothy seed is more abundant than expected, and has come in on a quiet market to meet a practically negligible demand. During the past 30 days prices have dropped 50 to 75 cents. Present selling is around \$6.50.

Alsike remains firm with supplies leaving first hand holders, but quotations over the past 30 days about equal. Orders are constantly sustained and the season's end may find it hard to get. At present it goes for \$30 to \$34.

High grade Sweet Clover is in demand with supplies dwindling. Low and medium grades are not heavily sought in a well supplied market. Normally an inexpensive seed and popular, it is predicted that it will be much wanted. It is bought at \$8.50 to \$9.50.

White Clover now goes almost unwanted, the

majority of farmer buyers not calling for it. Some late season demand may be expected. It now brings \$30 to \$35.

Alfalfa seed is coming into the market more plentifully than anticipated on the theory of decreased western yields. Most offers, though, come from Utah and Idaho, there being very little Dakota and Montana high grade now. Present light demands may continue until the end of the season before picking up. Prices: western, ranging from \$24.50 to \$27; choice Dakota, \$30 to \$32.

Seed corn prices have been unchanged for 30 days, with a liberal supply in the market from both local and western sources. There is little present movement of abundant amounts. Nebraska corn is quoted around \$1.80, very low; Wisconsin corn is bringing \$3.25.

IMPLIED WARRANTY OF SEED RESTS ON HIGH COURT EDICT

Dealers who sell wheat for seeding purposes will be specially interested in one of the major precedents which stand as applicable to any current suit against wheat seedsmen. As reported by Arthur Street in "The Miller and the Law," the decision of the Minnesota supreme court in the case of Johnson *versus* Foley Milling & Elevator Company, is as follows:

The court affirmed judgment against the defend-

ant for damages on the ground that there was a misrepresentation by the seed seller's agent as to the variety of wheat sold for seeding purposes.

The gist of the court's opinion is that, upon a sale of seed wheat by a particular name, a warranty that the seed is of the kind name arises; and that a purchaser of seeds under a warranty of kind, is entitled to recover, for the breach of such warranty, the difference between the value of the crop raised from the seed furnished, and that of a crop such as would ordinarily have been produced from the seed had it been of the kind guaranteed.

CONTRACT WAS ORAL

The contract of sale was made orally and the court finds that, as claimed by the plaintiff, the wheat in question was sold as "genuine Marquis wheat." It was further found that the wheat delivered was not of the specified variety, being a bearded wheat of inferior quality.

This decision, says Mr. Street, inspires the suggestion that when dealers are unwilling to guarantee the results of a crop to be grown from seed sold by them, there should be used an express disclaimer of warranty. Such disclaimers, of course, are now somewhat generally in use by seedsmen.

GOTHAM SEED TRADE SLOW

By C. K. TRAFTON

Developments during the month under review were disappointing to all interested in the New York seed market. In a nut-shell, the hopes of an early and active opening of the spring season in a number of varieties failed to materialize. Wholesale distributors were kept busy shipping out the seeds bought on contract months ago, but of the long-awaited new business there was no sign.

Prominent among the factors contributing to the slump was the bad weather. There was one brief period of mild weather which encouraged hopes in some quarters that spring farm operations were not far away, but the mirage faded.

Red Clover was perhaps the most disappointing item on the list because of its failure to assume the leadership in the opening of the spring season. As a consequence the market for this variety was somewhat unsettled. At one time considerable

doubt was expressed as to the willingness of farmers to buy domestic Clover freely at the 33½-cent basis quoted last month, and in some quarters it was thought that the price might be shaded fully one and a half cents. Temporarily imported Clover remained relatively steady owing to strong advices from Europe as a result of the extremely cold weather. Later the European situation became easier and this was reflected here where imported seed was quoted as low as 21½ cents duty-paid.

There are indications of a better inquiry developing and the market is steady with both domestic and imported clover again quoted on last month's nominal basis. Arrivals from Europe were on a much smaller scale, the total for the month being only 3,765 bags compared with about 7,000 bags for the preceding month.

DUSTED SEED SAVES MILLION

Of the 832,000 acres seeded to wheat in eastern Oregon, 95 per cent contains seed treated with copper carbonate dust. The resultant control of smut saves the grain trade in that state approximately \$1,000,000 a year. Formaldehyde and blue stone, prior to 1921, were the accepted agents for seed treatment.

One disadvantage of the new treatment is that the dust is injurious to health. For those growers who do not have their seed treated in local grain plants or seed houses, the Oregon Experiment Station recommends the use of respirators.

RUSSIAN OILSEED SCARCITY AFFECTS MARKET

Oilseed collection in Russia's big producing area, the Vladimir district, have been very low, together with collections of other grains, according to the Department of Commerce's report through its London office. The consequent lack of oilcakes has deeply affected the market.

Peasant mills in the districts have been grinding for local use.

BARLEY BLIGHT CANNOT BE CONTROLLED BY SEED

Growers cannot blame barley head blight losses on the seed dealer. J. J. Christensen, cerealist on the Minnesota University staff, points out that use of cleaned or treated seeds is to no avail when spore infected soil or stubble is involved. Spores which produce barley head blight multiply at a tremendous rate in stubble.

SEED CARS TOUR MANITOBA

Specially equipped railway cars, carrying displays and news of the Dominion better-seed campaign, are enroute over Manitoba rails. Frequent stops are made, and inspection of the displays by farmers is invited. Seed experts from the provincial college of agriculture share in conducting the demonstrations. Small quantities of choice seed are offered for sale from the lecture cars.

JUDGING SEED "BY EAR"

The length, smoothness, or other characters of ear corn—are these factor of any value to seedsmen in determining seed value? An affirmative answer to this question is given by E. G. Montgomery, formerly with the Nebraska Experiment Station, later with Cornell University, and author of a book on corn. His studies indicate the yielding value of the long, smooth type of ear. He also says that a medium depth of kernel is preferable to very deep or shallow kernels.

Reports from other sources bear out his convictions. Williams and Welton of the Ohio Experiment Station say that in 10 years of experiments

(Continued on Page 565)

DRY Skim Milk

35% to 37% MILK PROTEIN—

builds muscle and meat

8% MILK MINERALS—

builds strong bones

51% MILK SUGAR (LACTOSE)—

energy and health giving foods

Dry Skim Milk is recognized by leading authorities and is in popular demand by poultry and livestock raisers on account of its health and growth promoting qualities.

Leading Feed Manufacturers use Dry Skim Milk in many of their formulas.

In poultry rations Dry Skim Milk promotes growth, stimulates laying, and maintains a healthy condition of the flock. Excellent in fattening feeds. Controls coccidiosis.

In Calf Meals, Pig and Hog Meals, Dry Skim Milk is also excellent.

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3	.12	.13	.15	.18	\$0.21
3½	.13	.15	.17	.21	.25
4	.15	.17	.20	.25	.30
4½	.17	.20	.23	.29	.34
5	.19	.21	.25	.31	.37
6		.24	.28	.35	.42
7		.26	.31	.39	.46
8		.31	.37	.46	.55
9		.37	.43	.54	.65
10		.40	.48	.58	.70
			.52	.65	.78
			.58	.72	.87

PRICES FOR WIDER BELTS AND FOR 7 TO 10 PLY ON APPLICATION

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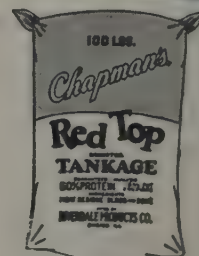
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RAW BONE MEAL — CALCIUM CARBONATE

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Offices: 105 West Adams Street, Chicago



60% Protein

which they conducted, the yield secured from long ears within a variety was 1.39 bushels per acre more than the yield secured from short ears. In nine years of experiments, tapering ears outyielded cylindrical ears by 1.65 bushels per acre. Six years' experiments with ears having an average shelling percentage of 88.16 per cent as compared with ears averaging 76.35 per cent showed a slight increase in yield for the ears with the lower shelling percentage.

SHELLED CORN PACKETS EXEMPT FROM BORER QUARANTINE

Under an amendment to the European corn borer quarantine regulations issued by the Secretary of Agriculture, certain new territory is added to the regulated area, effective this month. At the same time, the requirement of certification is discontinued with respect to packages of shelled corn weighing two pounds or less.

The new area under ban is enlarged to include 28 new towns in Middlesex, New London, and Windham Counties, Connecticut; one in Worcester County, Massachusetts; four in Cumberland and Sagadahoc Counties, Maine; and eight in Carroll, Cheshire, and Grafton Counties, New Hampshire. Throughout this area inspection and certification will now be required with respect to shelled corn (except in packages of two pounds or less), the cleaned seed of broomcorn and of sorghum and Sudan grass, celery, green beans in the pod, beets

with tops, rhubarb, oat and rye straw as such or when used as packing.

The shipment of ear corn, cornstalks and other parts and debris of corn, broomcorn, sorghum and Sudan grass plants from the regulated areas to or through points outside thereof is prohibited. Ohio
(Continued on Page 566)

FOR SALE

Flour, feed and seed business. Must sell on account of poor health. BOX D, Manson, Iowa.

POSITION WANTED

As manager of grain elevator. Have 15 years' experience. Best references. Can come at once. EVERETT W. COX, 408 N. Walcott St., Indianapolis, Ind.

WANTED

Man for exceptionally good permanent position in Chicago. In charge of engineering department, designing, elevating and conveying equipment. Also another man to take charge of grain elevator division. State salary expected and experience with names of companies and kind of work done in detail, or no attention paid. S. S., Box 3, care AMERICAN ELEVATOR AND GRAIN TRADE, 431 S. Dearborn St., Chicago, Ill.

MACHINERY

FOR SALE

Pulleys, 1,000; all sizes, solid cast iron, wood and steel split. Elevator belts and buckets and supplies. STANDARD MILL SUPPLY COMPANY, 501 Waldheim Building, Kansas City, Mo.

ELEVATORS AND MILLS

FOR SALE CHEAP

Chicago Terminal Elevators, capacity 125,000 bushels. TERMINAL ELEVATORS, Box 2, care AMERICAN ELEVATOR & GRAIN TRADE, 431 South Dearborn St., Chicago, Ill.

FOR SALE IN MICHIGAN

Best paying grain and bean elevator in town of 5,000. Fine residence and four acres choice land. Sixty-nine cars of coal sold last year. Average business, \$150,000 to \$200,000. R. N. PARSHALL, 442 Charlotte Ave., Detroit, Mich.

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Bag Lots or Carloads

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Wholesale Field and Grass Seeds
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All Grades and Grinds.
We specialize on Fine Ground for
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Miscellaneous Notices

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Turn mill failures into successes. Turn unprofitable flour mills into successful feed mills. Get my inspection for success. I flow, plan, inspect, appraise, test, remodel and build flour and feed mills. Finest references. Prices reasonable. Consult me now. Get my books from the AMERICAN GRAIN TRADE, C. E. OLIVER, E. M. & M. E., Coshocton, Ohio.

For Sale

FEED BUSINESS FOR SALE

Feed manufacturing and warehouse business on tracks, 10-year lease, 22,500 square feet floor space. Brick building. In good poultry section; 50 miles from Los Angeles. \$8,000. Inventory. SPECIAL FEED & WAREHOUSE CO., 3rd and Ramona Sts., Corona, Calif.

Save Time and Energy

If you have occasion to convert grain weights into their equivalents of bushels, you will find all calculations worked out for you in

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431 So. Dearborn St. Chicago, Ill.

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Portland is in the heart of the agricultural region of the Pacific Northwest. It also has an abundance of cheap, hydroelectric power for manufacturing purposes, good ocean and railway shipping facilities and a fair supply of skilled labor, practically all of which is non-union.

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"HOOSIER YEASTOMINERAL" gives Poultry, Hog and Cattle feeds proper balance. Contains four pounds of Yeast and minerals in proportion for requirements of the body of livestock. Bonemeal and Calcium Carbonate and like Rock products are not balanced and will not give results. Manufacturers like YEASTOMINERAL because it is balanced and contains Yeast, one of the great ingredients in the assimilation of minerals and foods.

YEASTOMINERAL will prevent nutritional abortion and all mineral deficiencies in livestock. Get ahead of the other fellow by using our balanced mineral and our advertising campaign. This mineral is sold by over 200 Veterinarians. It must give results for those fellows.

HOOSIER MINERAL FEED COMPANY
GREENWOOD, INDIANA

and Indiana towns are included in the new quarantine area.

The actual spread of the borer during the past year, except in the New England States, has been less than during previous seasons. In Indiana, however, it has found its way west to the shore of Lake Michigan and that fact, added to its spread in the upper peninsula of the State of Michigan, is the cause of the extension of the quarantine to cover that entire state.

WOULD FEED STOCK OF POOR

A bill before the Wisconsin legislature proposes that the support of indigent citizens be extended to their cattle. It provides for state feeding of cattle by officials charged with the support of the poor at the expense of the town or county concerned. The local government would be given a lien on the stock so fed.

"Especially in the spring of each year," the author of the bill explained, "some farmers are so depleted of funds or credit for feed that their animals die of starvation in considerable number, or are temporarily or permanently impaired for useful work."

Whether the proposal will mean anything or not cannot be conjectured.

SPECIAL LICENSE FOR 46 SEED DEALERS IN 19 STATES

The limited supplies of alfalfa seed available afford an unusual opportunity for unscrupulous dealers this season to offer types of seed unsuited for use in their localities, warns the Federal Department of Agriculture. High prices, due to the short crop of this seed, permit unreliable firms to bring in varieties which can produce good crops only in their native soils.

Protection for the seed dealer's customer, says the Department, is offered by the "United States

Verified-Origin Seed Certificate tag" which should be attached to each bag.

Forty-six seed dealers in 19 states have been authorized by the Government to issue these tags. These dealers handle about 85 per cent of the alfalfa seed purchased in central and northern producing districts. They are required to have, so far as possible, all alfalfa seed handled by them (except state-certified or imported seed) verified as to origin through inspection certificates issued by Federal inspectors.

Verified-origin alfalfa seed may be obtained either directly from one of the 46 verified-origin alfalfa seed dealers or from a retail dealer handling verified-origin alfalfa seed under certificate of a verified-origin seed dealer. Such seed may cost a little more than seed of non-verified origin because of the expense of keeping complete and accurate records and in certifying seed as to origin, but the additional cost is insignificant as compared with the protection which is given the user of such seed. Government supervision is maintained over the 46 verified-origin dealers.

The Moore Seed Company, Philadelphia, Pa., has moved into its new warehouse.

A seed store with Joseph Fozzard as manager has been opened at Marion, Ill.

The Bowman Seed Company of Superior, Neb., has moved into its new quarters.

Gardner Bros., seed dealers, are now operating in their new building, 40x100 feet, at Sioux Falls, S. D.

The W. H. Woodruff & Son Seed Company, Milford, Conn., is establishing a branch at Mercedes, Texas.

The Gold Bond Seed Company contemplates rebuilding at Vermont, Ill. L. A. McGrew is the principal promoter.

The Eastern Seed Company has been organized

at Lancaster, Pa., with a capital stock of \$25,000. Incorporators are Homer D. Leh, Rufus K. Kuhns, Roy Deck and E. J. Sterner.

Floyd Gladish is erecting a new warehouse at Petersburg, Ind., where he intends to operate a seed and grain business.

Lee Halsted, Crawford, Neb., plans the erection of a brick seed house, 26x40, to be completed in time for the coming crop.

T. J. Smith will wreck his old seed house at Grand Forks, N. D., and rebuild this spring on the same site a two-story brick structure.

A seed cleaning machine will be installed this spring in the plant of the Lake of the Woods Clover seed Marketing Association, Baudette, Minn.

I. L. Radwaner Seed Company, Inc., has leased a warehouse in downtown New York where it will be equipped to handle wholesale grass and field seeds.

The Ortonville (Minn.) Seed & Supply House has recently dissolved partnership. Ed. Schult retires from the firm and L. B. Olsen will continue the business.

Northrup, King & Company, Minneapolis, has opened a branch store at Fort Dodge, Iowa, for the 1929 season. A. F. Buckles is manager of the new branch store.

Creditors of Farmers Service Company, Inc., (Seed) Middletown, N. Y., met with the referee in bankruptcy, Augustus W. Bennett, to pass upon application for permission to sell the private property on sealed bids.

The Ed Coe Seed Company is adding to its chain stores by opening new branches this month at Webster City and Boone, Iowa. The original store is located at Ames. Garden, lawn and farm seeds will be handled. Earl Holdredge will operate the Webster City store and Raymond Knapp the store at Boone.

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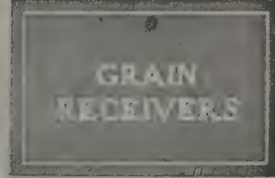
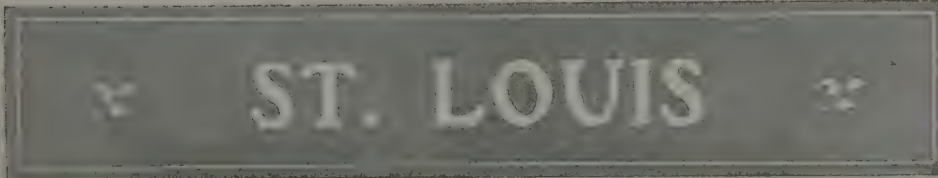
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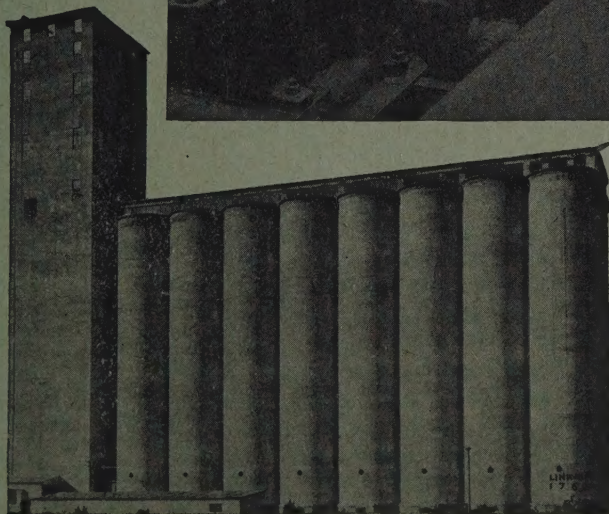
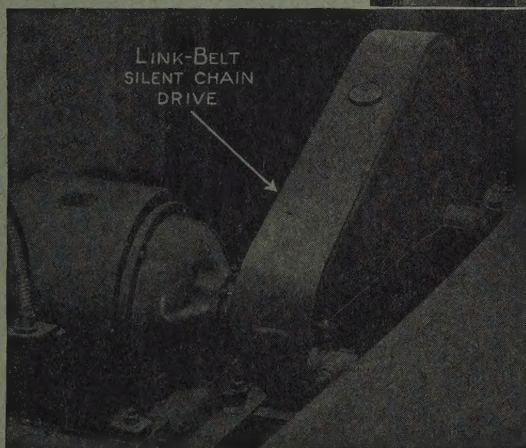
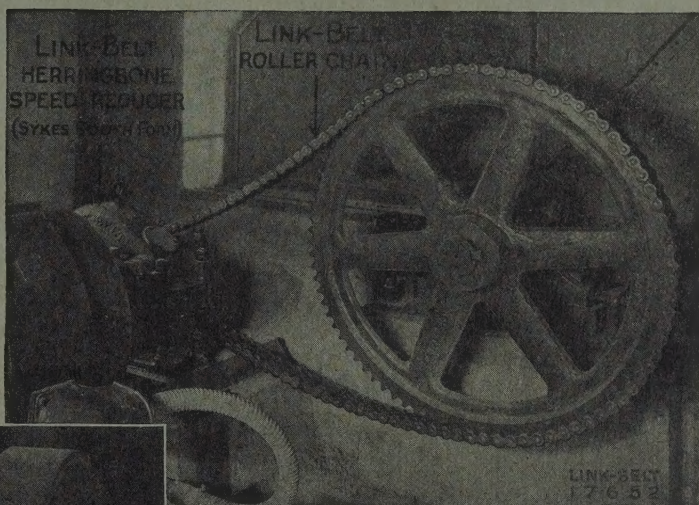
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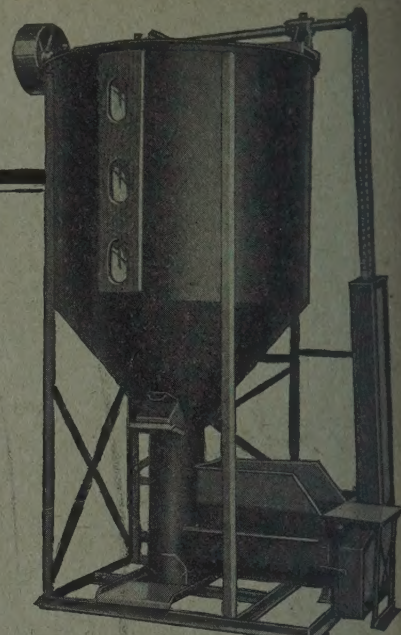
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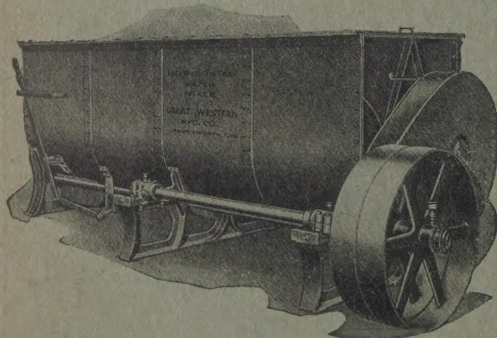
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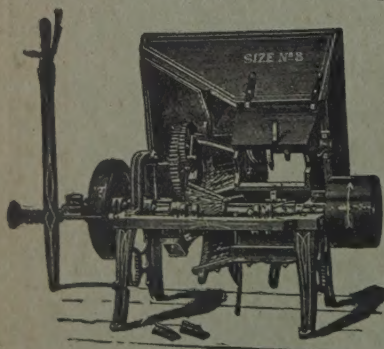
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